SECTION WT
ROAD WHEELS & TIRES

CONTENTS

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Repair Work Flow

INFOID:0000000004346931

DETAILED FLOW

1.VERIFY CUSTOMER COMPLAINTS

Interview the customer to obtain detailed information about the symptom.

>> GO TO 2.

2.DETERMINE REFERENCE ITEM RELATED TO SYMPTOM

Check the symptom on the vehicle from the information obtained. (cruise test, warning lamp illumination or blinking, etc.)

Is the symptom confirmed?

YES >> GO TO 3.
NO >> GO TO 4.

3.PRELIMINARY INSPECTION

1. Check all tire pressures. Refer to WT-106, "Tire Air Pressure".
2. Check the low tire pressure warning lamp for illumination or blinking. Refer to WT-86, "Symptom Table".

Is the malfunction finished?

YES >> INSPECTION END
NO >> GO TO 4.

4.PERFORM SELF-DIAGNOSIS

Perform self-diagnosis. Record any DTCs and data displayed on CONSULT-III.

Is there any DTC displayed?

YES >> GO TO 6.
NO >> GO TO 5.

5.CHECK SYMPTOM

Perform troubleshooting by symptom. Refer to WT-86, "Symptom Table".

Is the causal factor identified?

YES >> GO TO 7.
NO >> GO TO 9.

6.PERFORM THE SYSTEM DIAGNOSIS

Perform the diagnosis applicable to the displayed DTC. Refer to WT-83, "DTC Index".

>> GO TO 7.

7.REPAIR OR REPLACE MALFUNCTIONING PARTS

Repair or replace the applicable part.

>> GO TO 8.

8.CHECK SELF-DIAGNOSIS RESULT

1. Erase DTCs. Refer to WT-13, "AIR PRESSURE MONITOR : Diagnosis Description".
2. Perform self-diagnosis again.

Is any DTC displayed?

YES >> GO TO 6.
NO >> GO TO 9.

9.FINAL CHECK

1. Perform a cruise test.
2. Check the warning lamp for illumination or blinking.

Is the malfunction corrected?

YES >> INSPECTION END
NO >> GO TO 4.

INSPECTION AND ADJUSTMENT
TRANSMITTER WAKE UP OPERATION

TRANSMITTER WAKE UP OPERATION : Description

INFOID:0000000004346932

This procedure must be done after replacement of a transmitter, BCM, or rotation of wheels.

TRANSMITTER WAKE UP OPERATION : Special Repair Requirement

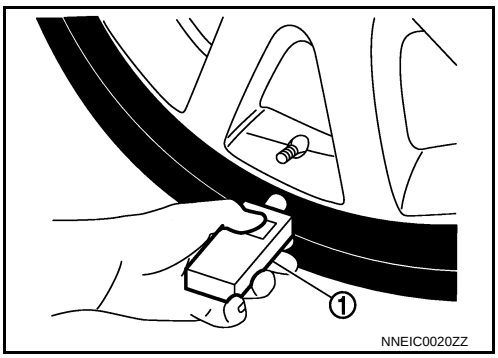
INFOID:0000000004346933

1. TRANSMITTER WAKE-UP PROCEDURE

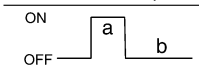
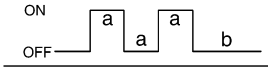
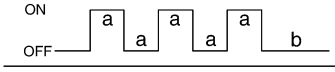
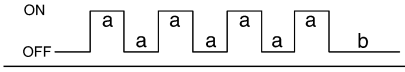
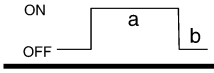
1. Turn the ignition switch ON.
2. Contact the transmitter activation tool (J-45295) (1) to the side of the tire at the location to the transmitter.
3. Press and hold the activation tool button while pushing the tool to the tire surface. (approximately for 5 seconds)

CAUTION:

Perform the wake-up procedure starting from the vehicle front left wheel, then repeat the procedure in the order of the front right wheel, rear right wheel, and rear left wheel.



4. Check that the low tire pressure warning lamp blinks in the pattern shown as per the following. The pattern indicates that the transmitter wake-up procedure for the wheel is completed.

Low tire pressure warning lamp blinking timing	Activation tire position
 a : 0.3 sec. b : 1.3 sec.	Front LH
 a : 0.3 sec. b : 1.3 sec.	Front RH
 a : 0.3 sec. b : 1.3 sec.	Rear RH
 a : 0.3 sec. b : 1.3 sec.	Rear LH
 a : 2 sec. b : 0.2 sec.	All tires

SEIA0762E

5. Check that the turn signal lamps blink twice when the transmitter wake-up procedure for all wheels is completed.
6. Check that the low tire pressure warning lamp turns OFF, after the transmitter wake-up procedure is completed for all wheels and turns OFF.

Is the transmitter wake-up procedure completed?

YES >> Perform the transmitter ID registration procedure. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

NO >> Perform trouble diagnosis for the transmitter. Refer to WT-13, "AIR PRESSURE MONITOR : Diagnosis Description".

ID REGISTRATION PROCEDURE

ID REGISTRATION PROCEDURE : Description

INFOID:0000000004346934

This procedure must be done after replacing or rotating wheels, replacing transmitter or BCM.

ID REGISTRATION PROCEDURE : Special Repair Requirement

INFOID:0000000004346935

1. TRANSMITTER ID REGISTRATION PROCEDURE

With CONSULT-III.

1. Display the “WORK SUPPORT” screen and select “ID REGIST”.

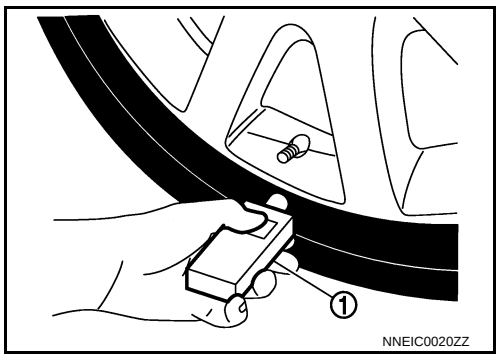
Is the transmitter activation tool (J-45295) used for the transmitter ID registration procedure?

YES >> GO TO 2.
NO >> GO TO 3.

2. TRANSMITTER ID REGISTRATION PROCEDURE (WITH THE TRANSMITTER ACTIVATION TOOL)

1. Turn the ignition switch ON.
2. Select the start button on the “ID REGIST” screen.
3. Contact the transmitter activation tool (J-45295) (1) to the side of the tire at the location to the transmitter.
4. Press and hold the activation tool button while pushing the tool to the tire surface. (approximately for 5 seconds)

CAUTION:
Perform the ID registration procedure starting from the vehicle front left wheel, then repeat the procedure in the order of the front right wheel, rear right wheel, and rear left wheel.



5. When ID registration is completed, check the following pattern at each wheel.

Sequence	ID registration position	Turn signal lamp	CONSULT-III
1	Front left wheel	2 blinks	“Red” ↓ “Green”
2	Front right wheel		
3	Rear right wheel		
4	Rear left wheel		

6. After the ID registration procedure for all wheels is completed, press “END” to end ID registration, and check that ID registration for all wheels is completed.

Is the check result normal?

YES >> ID registration END.
NO >> Performs trouble-diagnosis of the Tire Pressure Monitoring System (TPMS). Refer to WT-13, "AIR PRESSURE MONITOR : Diagnosis Description".

3. TRANSMITTER ID REGISTRATION PROCEDURE (WITHOUT THE TRANSMITTER ACTIVATION TOOL)

1. Adjust the tire pressure for all wheels to match the list below.

Tire position	Tire pressure kPa (kg/cm^2, psi)
Front LH	240 (2.4, 35)
Front RH	220 (2.2, 31)
Rear RH	200 (2.0, 29)
Rear LH	180 (1.8, 26)

2. Drive the vehicle at a speed at more than 40 km/h (25 MPH) for 3 minutes or more, then perform the transmitter ID registration procedure.
3. After ID registration for all wheels is completed, press “END” to end ID registration.

ID registration position	CONSULT-III
Front LH	“Red” ↓ “Green”
Front RH	
Rear RH	
Rear LH	

4. Adjust the tire pressures for all wheels to the specified value. Refer to WT-106, "Tire Air Pressure".

Is ID registrations for all wheels completed?

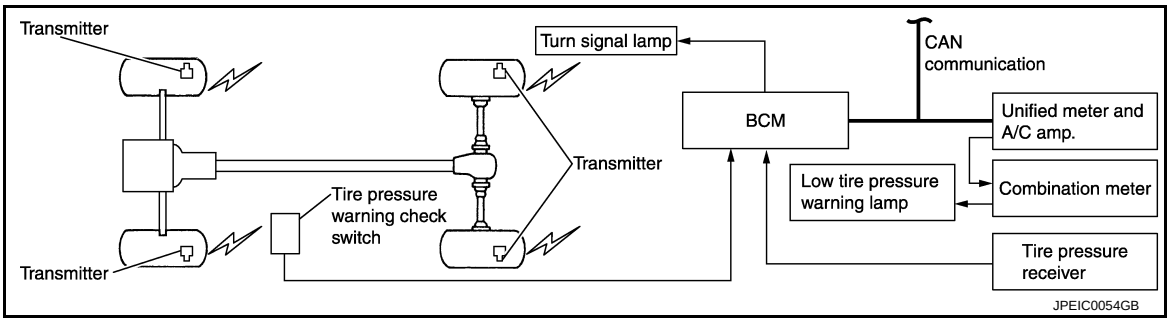
YES >> ID registration END.
NO >> Performs trouble-diagnosis of the Tire Pressure Monitoring System (TPMS). Refer to WT-13, "AIR PRESSURE MONITOR : Diagnosis Description".

SYSTEM DESCRIPTION

TPMS

System Diagram

INFOID:0000000004346936



System Description

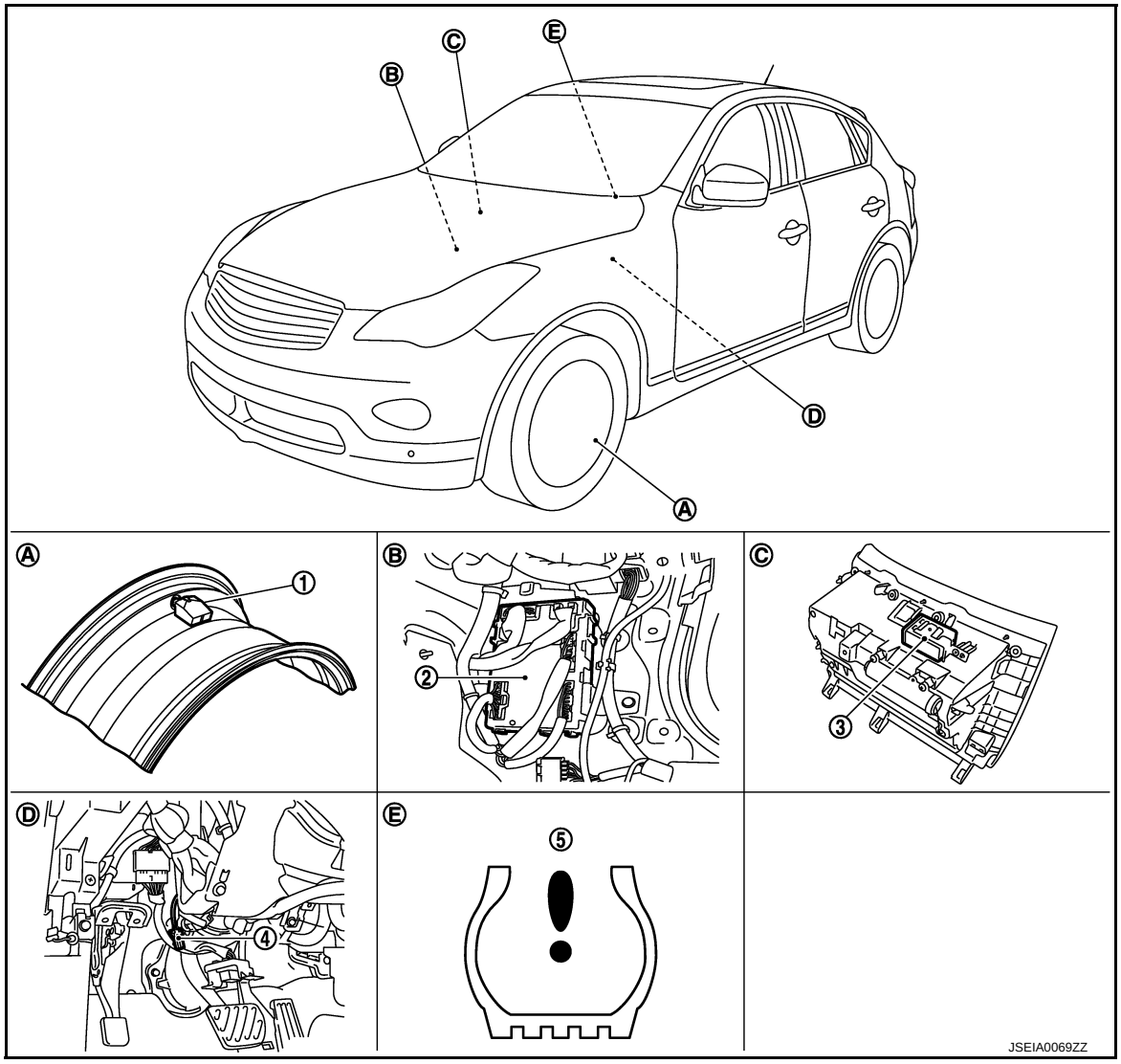
INFOID:0000000004346937

DESCRIPTION

During driving, the TPMS (Tire Pressure Monitoring System) receives the signal transmitted from transmitter installed in each wheel. The BCM (Body Control Module) of this system has pressure judgment and trouble diagnosis functions. When the tire pressure monitoring system detects low inflation pressure or another unusual symptom, the low tire pressure warning lamps in the combination meter comes on.

Component Parts Location

INFOID:0000000004346938



1. Transmitter
2. BCM
3. Tire pressure receiver
4. Tire pressure warning check switch
5. Low tire pressure warning lamp
A. Wheel
B. Dash side lower (passenger side)
C. Instrument lower panel RH
D. Behind instrument lower panel LH
E. Inside combination meter

Component Description

INFOID:0000000004346939

Component parts	Function
BCM (Body Control Module)	WT-34, "Description".
Transmitter	WT-19, "Description".
Tire pressure receiver	WT-37, "Description".
Tire pressure warning check switch	WT-40, "Description".
Turn signal lamp	ID registration of each wheel has been completed, turn signal lamp flashes.

Component parts	Function
Unified meter and A/C amp.	Transmits the vehicle speed signal via CAN communication to BCM.
	Receives the following signals via CAN communication for BCM. • Tire pressure warning lamp signal • Hazard lamp signal • Buzzer signal
Low tire pressure warning lamp	Illuminates if malfunction is detected in electrical system of TPMS.

DIAGNOSIS SYSTEM (BCM)
COMMON ITEM
COMMON ITEM : CONSULT-III Function (BCM - COMMON ITEM)

INFOID:0000000004346940

APPLICATION ITEM
CONSULT-III performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
Work Support	Changes the setting for each system function.
Self Diagnostic Result	Displays the diagnosis results judged by BCM.
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM. Refer to CONSULT-III operation manual.
Data Monitor	The BCM input/output signals are displayed.
Active Test	The signals used to activate each device are forcibly supplied from BCM.
Ecu Identification	The BCM part number is displayed.
Configuration	• Read and save the vehicle specification. • Write the vehicle specification when replacing BCM.

SYSTEM APPLICATION
BCM can perform the following functions for each system.

NOTE:

It can perform the diagnosis modes except the following for all sub system selection items.

×: Applicable item

System	Sub system selection item	Diagnosis mode		
		Work Support	Data Monitor	Active Test
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER		×	×
Warning chime	BUZZER		×	×
Interior room lamp timer	INT LAMP	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
—	AIR CONDITONER*			
• Intelligent Key system • Engine start system	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
Body control system	BCM	×		
IVIS - NATS	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
—	TRUNK*		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	TPMS (AIR PRESSURE MONITOR)	×	×	×

NOTE:

*: This item is displayed, but is not used.

FREEZE FRAME DATA (FFD)
The BCM records the following vehicle condition at the time a particular DTC is detected, and displays on CONSULT-III.

CONSULT screen item	Indication/Unit	Description	
Vehicle Speed	km/h	Vehicle speed of the moment a particular DTC is detected	
Odo/Trip Meter	km	Total mileage (Odometer value) of the moment a particular DTC is detected	
Vehicle Condition	SLEEP>LOCK	Power position status of the moment a particular DTC is detected	While turning BCM status from low power consumption mode to normal mode (Power supply position is “LOCK”)
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode (Power supply position is “OFF”.)
	LOCK>ACC		While turning power supply position from “LOCK” to “ACC”
	ACC>ON		While turning power supply position from “ACC” to “IGN”
	RUN>ACC		While turning power supply position from “RUN” to “ACC” (Vehicle is stopping and selector lever is except P position.)
	CRANK>RUN		While turning power supply position from “CRANKING” to “RUN” (From cranking up the engine to run it)
	RUN>URGENT		While turning power supply position from “RUN“ to “ACC” (Emergency stop operation)
	ACC>OFF		While turning power supply position from “ACC” to “OFF”
	OFF>LOCK		While turning power supply position from “OFF” to “LOCK”
	OFF>ACC		While turning power supply position from “OFF” to “ACC”
	ON>CRANK		While turning power supply position from “IGN” to “CRANKING”
	OFF>SLEEP		While turning BCM status from normal mode (Power supply position is “OFF”.) to low power consumption mode
	LOCK>SLEEP		While turning BCM status from normal mode (Power supply position is “LOCK”.) to low power consumption mode
	LOCK		Power supply position is “LOCK” (Ignition switch OFF with steering is locked.)
	OFF		Power supply position is “OFF” (Ignition switch OFF with steering is unlocked.)
	ACC		Power supply position is “ACC” (Ignition switch ACC)
	ON		Power supply position is “IGN” (Ignition switch ON with engine stopped)
	ENGINE RUN		Power supply position is “RUN” (Ignition switch ON with engine running)
	CRANKING		Power supply position is “CRANKING” (At engine cranking)
IGN Counter	0 - 39	The number of times that ignition switch is turned ON after DTC is detected • The number is 0 when a malfunction is detected now. • The number increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. • The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.	

AIR PRESSURE MONITOR

AIR PRESSURE MONITOR : Diagnosis Description

INFOID:0000000004346941

DESCRIPTION

During driving, the TPMS receives the signal transmitted from the transmitter installed in each wheel, when the tire pressure becomes low. The control unit (BCM) of this system has pressure judgment and trouble diagnosis functions.

When the TPMS detects low inflation pressure or another unusual symptom, the low tire pressure warning lamps in the combination meter comes on.

SELF DIAGNOSTIC PROCEDURE (WITH CONSULT-III)

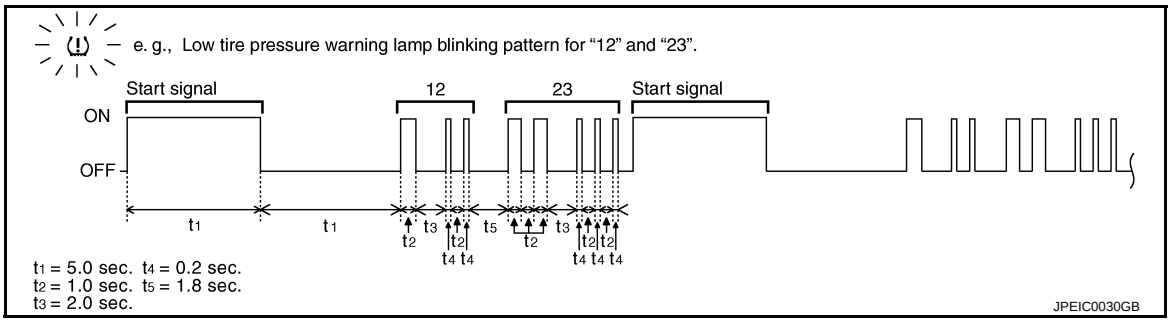
With CONSULT-III

Touch “SELF-DIAG RESULT” display shows malfunction experienced since the last erasing operation. Refer to WT-83, "DTC Index".

SELF DIAGNOSTIC PROCEDURE (WITHOUT CONSULT-III)

Without CONSULT-III

To start the self-diagnostic results mode, ground terminal of the tire pressure warning check connector. The malfunction location is indicated by the low tire pressure warning lamp blinking.



NOTE:

When the low tire pressure warning lamp blinks 5 Hz and continues repeating it, the system is normal.

Blinking pattern	Items	Diagnostic items detected when···	Check item
15	Tire pressure value (Front LH)	Front LH tire pressure drops to * kPa (* kg/cm^2, * psi) or less. [NOTE]	WT-17
16	Tire pressure value (Front RH)	Front RH tire pressure drops to * kPa (* kg/cm^2, * psi) or less. [NOTE]	
17	Tire pressure value (Rear RH)	Rear RH tire pressure drops to * kPa (* kg/cm^2, * psi) or less. [NOTE]	
18	Tire pressure value (Rear LH)	Rear LH tire pressure drops to * kPa (* kg/cm^2, * psi) or less. [NOTE]	
21	Transmitter no data (Front LH)	Data from front LH transmitter can not be receive.	WT-19
22	Transmitter no data (Front RH)	Data from front RH transmitter can not be receive.	
23	Transmitter no data (Rear RH)	Data from rear RH transmitter can not be receive.	
24	Transmitter no data (Rear LH)	Data from rear LH transmitter can not be receive.	
31	Transmitter checksum error (Front LH)	Checksum data from front LH transmitter is malfunctioning.	WT-22
32	Transmitter checksum error (Front RH)	Checksum data from front RH transmitter is malfunctioning.	
33	Transmitter checksum error (Rear RH)	Checksum data from rear RH transmitter is malfunctioning.	
34	Transmitter checksum error (Rear LH)	Checksum data from rear LH transmitter is malfunctioning.	
35	Transmitter pressure data error (Front LH)	Air pressure data from front LH transmitter is malfunction.	WT-25
36	Transmitter pressure data error (Front RH)	Air pressure data from front RH transmitter is malfunction.	
37	Transmitter pressure data error (Rear RH)	Air pressure data from rear RH transmitter is malfunction.	
38	Transmitter pressure data error (Rear LH)	Air pressure data from rear LH transmitter is malfunction.	
41	Transmitter function code error (Front LH)	Function code data from front LH transmitter is malfunction.	WT-27
42	Transmitter function code error (Front RH)	Function code data from front RH transmitter is malfunction.	
43	Transmitter function code error (Rear RH)	Function code data from rear RH transmitter is malfunction.	
44	Transmitter function code error (Rear LH)	Function code data from rear LH transmitter is malfunction.	

Blinking pattern	Items	Diagnostic items detected when···	Check item
45	Transmitter battery voltage low (Front LH)	Battery voltage of front LH transmitter drops.	WT-30
46	Transmitter battery voltage low (Front RH)	Battery voltage of front RH transmitter drops.	
47	Transmitter battery voltage low (Rear RH)	Battery voltage of rear RH transmitter drops.	
48	Transmitter battery voltage low (Rear LH)	Battery voltage of rear LH transmitter drops.	
52	Vehicle speed signal error	Vehicle speed signal error.	WT-33
53	Control unit	Tire pressure monitoring system malfunction in BCM.	WT-34
No blinking	Tire pressure warning check switch	Tire pressure warning switch circuit is open.	–

NOTE:

NOTE: 182.7 kPa (1.9 kg/cm^2, 26 psi): Standard air pressure is for 230 kPa (2.3 kg/cm^2, 33 psi) vehicles.

ERASE SELF-DIAGNOSIS

With CONSULT-III

1. Perform applicable inspection of malfunctioning item and then repair or replace.
2. Turn ignition switch ON and select “SELF-DIAG RESULTS” mode for “AIR PRESSURE MONITOR” with CONSULT-III.
3. Touch “ERASE” on CONSULT-III screen to erase memory.

Without CONSULT-III

- In order to make it easier to find the cause of hard-to-duplicate malfunctions, malfunction information is stored into the control unit as necessary during use by the user. This memory is not erased no matter how many times the ignition switch is turned ON and OFF.
- However, this information is erased by turning ignition switch OFF after performing self-diagnostic or by erasing the memory using the CONSULT-III.

AIR PRESSURE MONITOR : CONSULT-III Function (BCM - AIR PRESSURE MONITOR)

INFOID:0000000004346942

WORK SUPPORT MODE

ID Read
The registered ID number is displayed.

ID Regist
Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

SELF-DIAG RESULTS MODE

Operation Procedure
Refer to WT-83, "DTC Index".

DATA MONITOR MODE

Screen of data monitor mode is displayed.

NOTE:

When malfunction is detected, CONSULT-III perform REAL-TIME DIAGNOSIS.
Also, any malfunction detected while in this mode will be displayed at real time.

Display item list

Monitor	Condition	Specification
AIR PRESS FL AIR PRESS FR AIR PRESS RR AIR PRESS RL	• Drive vehicle for a few minutes. or • Ignition switch ON and transmitter activation tool is transmitting activation signals.	Tire pressure (kPa, kg/cm^2 or Psi)
ID REGST FL1 ID REGST FR1 ID REGST RR1 ID REGST RL1	Ignition switch ON	Registration ID: Green No registration: Red
WARNING LAMP		Low tire pressure warning lamp ON: on Low tire pressure warning lamp OFF: off
BUZZER		Buzzer in combination meter ON: on Buzzer in combination meter OFF: off

NOTE:
Before performing the self-diagnosis, be sure to register the ID, or erase the actual malfunction location may be different from that displayed on CONSULT-III.

ACTIVE TEST MODE

NOTE:
Before performing the self-diagnosis, be sure to register the ID, or erase the actual malfunction may be different from that displayed on CONSULT-III.

TEST ITEM LIST

Test item	Content
WARNING LAMP	This test is able to check to check that the low tire pressure warning lamp turns on.
ID REGIST WARNING	This test is able to check to check that the buzzer sounds or the low tire pressure warning lamp turns on.
FLASHER	This test is able to check to check that each turn signal lamp turns on.
HORN	This test is able to check to check that the horn sounds.

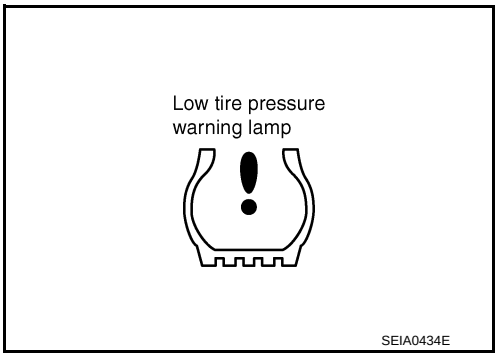
DTC/CIRCUIT DIAGNOSIS

C1704, C1705, C1706, C1707 LOW TIRE PRESSURE

Description

INFOID:0000000004346943

When the tire pressure monitoring system detects low inflation pressure, the low tire pressure warning lamps in the combination meter comes on.



DTC Logic

INFOID:0000000004346944

DTC DETECTION LOGIC

DTC	Display item	Malfunction detected condition	Possible cause
C1704	LOW PRESSURE FL	Front LH tire pressure drops to * kPa (* kg/cm^2, * psi) or less. [NOTE]	Tire pressure is low
C1705	LOW PRESSURE FR	Front RH tire pressure drops to * kPa (* kg/cm^2, * psi) or less. [NOTE]	
C1706	LOW PRESSURE RR	Rear RH tire pressure drops to * kPa (* kg/cm^2, * psi) or less. [NOTE]	
C1707	LOW PRESSURE RL	Rear LH tire pressure drops to * kPa (* kg/cm^2, * psi) or less. [NOTE]	

*: 182.7 kPa (1.9 kg/cm^2, 26 psi): Standard air pressure is for 230 kPa (2.3 kg/cm^2, 33 psi) vehicles.

DTC CONFIRMATION PROCEDURE

1. DTC REPRODUCTION PROCEDURE

With CONSULT-III
1. Drive at a speed of 40 km/h (25 MPH) or more for 10 minutes.
2. Perform BCM self-diagnosis.

Is DTC “C1704”, “C1705”, “C1706”, “C1707” detected?

YES >> Proceed to diagnosis procedure. Refer to WT-17, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000004346945

1. CHECK TIRE AIR PRESSURE

1. Check all tire air pressures.
2. Adjust all tire air pressures. Refer to WT-106, "Tire Air Pressure".

Does all tire pressure data meet the specification?

YES >> GO TO 2.
NO >> Inspect or replace malfunctioning parts.

2. CHECK AIR PRESSURE SIGNAL

1. Drive at a speed of 40 km/h (25 MPH) or more for 10 minutes.
2. Check all tire pressure with CONSULT-III “DATA MONITOR” within 5 minutes.

Monitored item	Condition	Display value
AIR PRESS FL	Start the engine and drive at a 40 km/h (25 MPH) or more for 10 minutes.	Approximately equal to the indication on vehicle information display.
AIR PRESS FR		
AIR PRESS RR		
AIR PRESS RL		

Is inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace damaged parts (tire or wheel). Refer to WT-97, "Service Notice or Precautions".

Special Repair Requirement

INFOID:0000000004346946

1.CHECK TIRE AIR PRESSURE

Check all tire air pressures. Refer to WT-106, "Tire Air Pressure".

Does all tire pressure data meet the specification?

YES >> GO TO 2.
NO >> Inspect or repair the tires or wheels and adjust the tire pressure to the specification.

2.PERFORM ID REGISTRATION

Perform ID registration. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

>> END

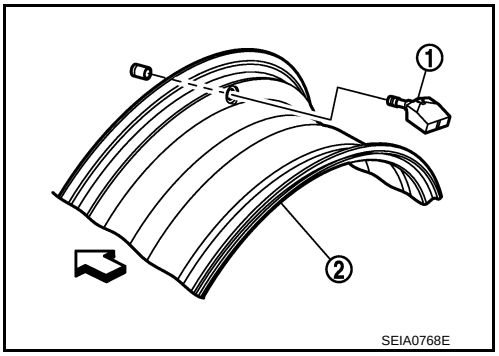
C1708, C1709, C1710, C1711 TRANSMITTER

Description

INFOID:0000000004346947

The transmitter (1) integrated with a valve is installed on a wheel (2), and transmits a detected air pressure signal by radio wave.

⇦ : Outside



DTC Logic

INFOID:0000000004346948

DTC DETECTION LOGIC

DTC	Display item	Malfunction detected condition	Possible cause
C1708	[NO DATA] FL	Data from front LH transmitter can not receive.	• Harness or connector (Tire pressure receiver, BCM) • ID registration is not finished • Transmitter malfunction • BCM malfunction
C1709	[NO DATA] FR	Data from front RH transmitter can not receive.	
C1710	[NO DATA] RR	Data from rear RH transmitter can not receive.	
C1711	[NO DATA] RL	Data from rear LH transmitter can not receive.	

DTC CONFIRMATION PROCEDURE

1.DTC REPRODUCTION PROCEDURE

With CONSULT-III
1. Drive at a speed of 40 km/h (25 MPH) or more for 10 minutes.
2. Perform BCM self-diagnosis.

Is DTC “C1708”, “C1709”, “C1710”, “C1711” detected?

YES >> Proceed to diagnosis procedure. Refer to WT-19, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000004346949

1.CHECK AIR PRESSURE SIGNAL

With CONSULT-III
1. Start the engine.
2. Select “DATA MONITOR” mode for “AIR PRESSURE MONITOR” with CONSULT-III.
3. Read out the value of “AIR PRESS FL”, “AIR PRESS FR”, “AIR PRESS RR”, “AIR PRESS RL”.

Monitored item	Condition	Display value
AIR PRESS FL	Start the engine and drive at a 40 km/h (25 MPH) or more for several minutes.	Approximately equal to the indication on vehicle information display.
AIR PRESS FR		
AIR PRESS RR		
AIR PRESS RL		

Are all tire pressures displayed 0 kPa?

YES >> GO TO 2.
NO >> GO TO 4.

2.CHECK HARNESS BETWEEN BCM AND TIRE PRESSURE RECEIVER

1. Turn the ignition switch OFF.
2. Disconnect BCM harness connector and tire pressure receiver harness connector.

3. Check continuity between BCM harness connector and tire pressure receiver harness connector.

BCM		Tire pressure receiver		Continuity
Connector	Terminal	Connector	Terminal	
M123	137	M101	1	Existed
	138		4	
	139		2	

4. Check continuity between BCM harness connector and ground.

BCM		—	Continuity
Connector	Terminal		
M123	137	Ground	Not existed
	138		
	139		

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace damaged parts.

3.CHECK TIRE PRESSURE RECEIVER

Check tire pressure receiver. Refer to WT-37, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check BCM pin terminals for damage or loose connection with harness connector. If any items are damaged, repair or replace damaged parts.
NO >> Replace the tire pressure receiver.

4.CHECK ID REGISTRATION

Perform ID registration of all transmitters. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

Can ID registration of all transmitters be completed?

YES >> GO TO 5.
NO >> Replace malfunctioning transmitter.

5.CHECK TIRE PRESSURE MONITORING SYSTEM

With CONSULT-III
1. Drive at a speed of 40 km/h (25 MPH) or more for several minutes without stopping.
2. Check all tire pressures with CONSULT-III “DATA MONITOR” within 15 minutes after stopped vehicle.

Monitored item	Condition	Display value
AIR PRESS FL	Start the engine and drive at 40 km/h (25MPH) or more for several minutes.	Approximately equal to the indication on vehicle information display.
AIR PRESS FR		
AIR PRESS RR		
AIR PRESS RL		

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace BCM.

Special Repair Requirement

INFOID:0000000004346950

1.CHECK TIRE AIR PRESSURE

Check all tire air pressures. Refer to WT-106, "Tire Air Pressure".

Does all tire pressure data meet the specification?

YES >> GO TO 2.

NO >> Inspect or repair the tires or wheels and adjust the tire pressure to the specification.

2. PERFORM ID REGISTRATION

Perform ID registration. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

>> END

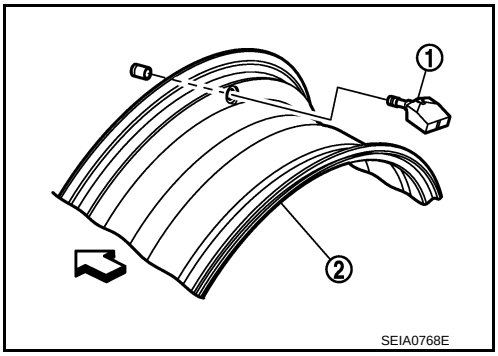
C1712, C1713, C1714, C1715 TRANSMITTER

Description

INFOID:0000000004346951

The transmitter (1) integrated with a valve is installed on a wheel (2), and transmits a detected air pressure signal by radio wave.

⇦ : Outside



DTC Logic

INFOID:0000000004346952

DTC DETECTION LOGIC

DTC	Display item	Malfunction detected condition	Possible case
C1712	[CHECKSUM ERR] FL	Checksum data from front LH transmitter is malfunction.	• Tire pressure receiver malfunction • Transmitter malfunction • BCM malfunction • Harness or connector
C1713	[CHECKSUM ERR] FR	Checksum data from front RH transmitter is malfunction.	
C1714	[CHECKSUM ERR] RR	Checksum data from rear RH transmitter is malfunction.	
C1715	[CHECKSUM ERR] RL	Checksum data from rear LH transmitter is malfunction.	

DTC CONFIRMATION PROCEDURE

1.DTC REPRODUCTION PROCEDURE

With CONSULT-III

1. Driving at a speed of 40 km/h (25 MPH) or more for 10 minutes.
2. Perform BCM self-diagnosis.

Is DTC “C1712”, “C1713”, “C1714“, “C1715” detected?

YES >> Proceed to diagnosis procedure. Refer to WT-22, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000004346953

1.CHECK ID REGISTRATION

With CONSULT-III

1. Perform the ID registration of all transmitters. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".
2. Drive at a speed of 40 km/h (25 MPH) or more for 10 minutes.
3. Check all tire pressure with CONSULT-III “DATA MONITOR” within 5 minutes.

Monitored item	Condition	Display value
AIR PRESS FL	Start the engine and drive at a 40 km/h (25 MPH) or more for 10 minutes.	Approximately equal to the indication on vehicle information display.
AIR PRESS FR		
AIR PRESS RR		
AIR PRESS RL		

Is the inspection result normal?

YES >> GO TO 6.
NO >> GO TO 2.

2.CHECK AIR PRESSURE SIGNAL

With CONSULT-III
1. Start the engine.
2. Select “DATA MONITOR” mode for “AIR PRESSURE MONITOR” with CONSULT-III.
3. Read out the value of “AIR PRESS FL”, “AIR PRESS FR”, “AIR PRESS RR” and “AIR PRESS RL”.

Monitored item	Condition	Display value
AIR PRESS FL	Start the engine and drive at a 40 km/h (25 MPH) or more for several minutes.	Approximately equal to the indication on vehicle information display.
AIR PRESS FR		
AIR PRESS RR		
AIR PRESS RL		

Are all tire pressures displayed 0 kPa?

YES >> GO TO 3.
NO >> GO TO 5.

3. CHECK HARNESS BETWEEN BCM AND TIRE PRESSURE RECEIVER

1. Turn the ignition switch OFF.
2. Disconnect BCM harness connector and tire pressure receiver harness connector.
3. Check continuity between BCM harness connector and tire pressure receiver harness connector.

BCM		Tire pressure receiver		Continuity
Connector	Terminal	Connector	Terminal	
M123	137	M101	1	Existed
	138		4	
	139		2	

4. Check continuity between BCM harness connector and ground.

BCM		—	Continuity
Connector	Terminal		
M123	137	Ground	Not existed
	138		
	139		

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace damaged parts.

4. CHECK TIRE PRESSURE RECEIVER

Check tire pressure receiver. Refer to WT-37, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check BCM pin terminals for damage or loose connection with harness connector. If any items are damaged, repair or replace damaged parts.
NO >> Replace the tire pressure receiver.

5. CHECK ID REGISTRATION

Perform ID registration of all transmitters. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

Can ID registration of all transmitters be completed?

YES >> GO TO 6.
NO >> Replace malfunctioning transmitter.

6. CHECK TIRE PRESSURE MONITORING SYSTEM

With CONSULT-III
1. Drive at a speed of 40 km/h (25 MPH) or more for several minutes without stopping.
2. Check all tire pressure with CONSULT-III “DATA MONITOR” within 15 minutes after stopped vehicle.

Monitored item	Condition	Display value
AIR PRESS FL	Start the engine and drive at a 40 km/h (25 MPH) or more for several minutes.	Approximately equal to the indication on vehicle information display.
AIR PRESS FR		
AIR PRESS RR		
AIR PRESS RL		

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace BCM. Refer to BCS-85, "Removal and Installation".

Special Repair Requirement

INFOID:0000000004346954

1.CHECK TIRE AIR PRESSURE

Check all tire air pressures. Refer to WT-106, "Tire Air Pressure".

Does all tire pressure data meet the specification?

YES >> GO TO 2.
NO >> Inspect or repair the tires or wheels and adjust the tire pressure to the specification.

2.PERFORM ID REGISTRATION

Perform ID registration. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

>> END

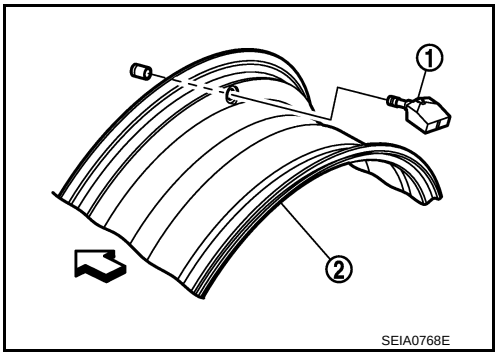
C1716, C1717, C1718, C1719 TRANSMITTER

Description

INFOID:0000000004346955

The transmitter (1) integrated with a valve is installed on a wheel (2), and transmits a detected air pressure signal by radio wave.

⇦ : Outside



DTC Logic

INFOID:0000000004346956

DTC DETECTION LOGIC

DTC	Display item	Malfunction detected condition	Possible case
C1716	[PRESSDATA ERR] FL	Air pressure data from front LH transmitter malfunction.	• ID registration is not finished • Transmitter malfunction
C1717	[PRESSDATA ERR] FR	Air pressure data from front RH transmitter malfunction.	
C1718	[PRESSDATA ERR] RR	Air pressure data from rear RH transmitter malfunction.	
C1719	[PRESSDATA ERR] RL	Air pressure data from rear LH transmitter malfunction.	

DTC CONFIRMATION PROCEDURE

1.DTC REPRODUCTION PROCEDURE

With CONSULT-III
1. Drive at a speed of 40 km/h (25 MPH) or more for 10 minutes.
2. Perform BCM self- diagnosis.

Is DTC “C1716”, “C1717”, “C1718”, “C1719” detected?

YES >> Proceed to diagnosis procedure. Refer to WT-25, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000004346957

1.CHECK TIRE PRESSURE

With CONSULT-III
1. Adjust tire pressure to specified value. Refer to WT-106, "Tire Air Pressure".
2. Perform the ID registration of all transmitters. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".
3. Drive at a speed of 40 km/h (25 MPH) or more for several minutes without stopping.
4. Check all tire pressure with CONSULT-III “DATA MONITOR” within 15 minutes after stopped vehicle.

Monitored item	Condition	Display value
AIR PRESS FL	Start the engine and drive at a 40 km/h (25 MPH) or more for several minutes.	Approximately equal to the indication on vehicle information display.
AIR PRESS FR		
AIR PRESS RR		
AIR PRESS RL		

Is tire pressure indicated as 438.60 kPa (4.47kg/cm^2, 63.60 psi) on the “DATA MONITOR” screen?

YES >> Replace malfunctioning transmitter.
NO >> GO TO 2.

2.CHECK TIRE PRESSURE MONITORING SYSTEM

With CONSULT-III

1. Perform the ID registration of all transmitters. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".
2. Drive at a speed of 40 km/h (25 MPH) or more for 10 minutes.
3. Check all tire pressures with CONSULT-III “DATA MONITOR” within 5 minutes.

Monitored item	Condition	Display value
AIR PRESS FL	Start the engine and drive at a 40 km/h (25 MPH) or more for 10 minutes.	Approximately equal to the indication on vehicle information display.
AIR PRESS FR		
AIR PRESS RR		
AIR PRESS RL		

Is the inspection result normal?

YES >> INSPECTION END
NO >> Perform the self-diagnosis, inspect detected malfunction. Refer to WT-13, "AIR PRESSURE MONITOR : Diagnosis Description".

Component Inspection

INFOID:0000000004346958

1.CHECK TRANSMITTER

With CONSULT-III

1. Adjust tire pressure to specified value. Refer to WT-106, "Tire Air Pressure".
2. Perform ID registration of all transmitters. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".
3. Drive at a speed of 40 km/h (25 MPH) or more for several minutes without stopping.
4. Check all tire pressure with CONSULT-III “DATA MONITOR” within 15 minutes after stopped vehicle.

Monitored item	Condition	Display value
AIR PRESSURE FL	Start the engine and drive at a 40 km/h (25 MPH) or more for several minutes.	Approximately equal to the indication on vehicle information display.
AIR PRESSURE FR		
AIR PRESSURE RR		
AIR PRESSURE RL		

Is tire pressure indicated as 438.60 kPa (4.47 kg/cm^2, 63.60 psi) on the “DATA MONITOR” screen?

YES >> Replace malfunctioning transmitter.
NO >> INSPECTION END

Special Repair Requirement

INFOID:0000000004346959

1.CHECK TIRE AIR PRESSURE

Check all tire air pressures. Refer to WT-106, "Tire Air Pressure".

Does all tire pressure data meet the specification?

YES >> GO TO 2.
NO >> Inspect or repair the tires or wheels and adjust the tire pressure to the specification.

2.PERFORM ID REGISTRATION

Perform ID registration. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

>> END

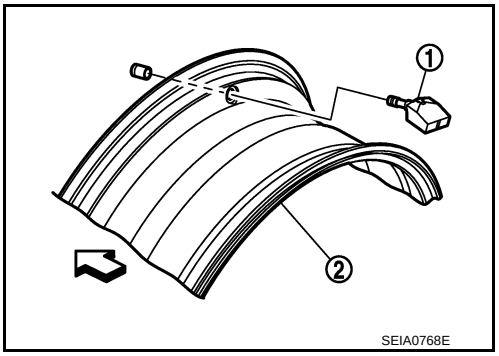
C1720, C1721, C1722, C1723 TRANSMITTER

Description

INFOID:0000000004346960

The transmitter (1) integrated with a valve is installed on a wheel (2), and transmits a detected air pressure signal by radio wave.

⇦ : Outside



DTC Logic

INFOID:0000000004346961

DTC DETECTION LOGIC

DTC	Display item	Malfunction detected condition	Possible case
C1720	[CODE ERR] FL	Function code data from front LH transmitter is malfunction.	• Tire pressure receiver malfunction • Transmitter malfunction • BCM malfunction • Harness or connector
C1721	[CODE ERR] FR	Function code data from front RH transmitter is malfunction.	
C1722	[CODE ERR] RR	Function code data from rear RH transmitter is malfunction.	
C1723	[CODE ERR] RL	Function code data from rear LH transmitter is malfunction.	

DTC CONFIRMATION PROCEDURE

1.DTC REPRODUCTION PROCEDURE

With CONSULT-III
1. Driving at a speed of 40 km/h (25 MPH) or more for 10 minutes.
2. Perform BCM self-diagnosis.

Is DTC “C1720”, “C1721”, “C1722”, “C1723” detected?

YES >> Proceed to diagnosis procedure. Refer to WT-27, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000004346962

1.CHECK ID REGISTRATION

With CONSULT-III
1. Perform the ID registration of all transmitters. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".
2. Drive at a speed of 40 km/h (25 MPH) or more for 10 minutes.
3. Check all tire pressure with CONSULT-III “DATA MONITOR” within 5 minutes.

Monitored item	Condition	Display value
AIR PRESS FL	Start the engine and drive at a 40 km/h (25 MPH) or more for 10 minutes.	Approximately equal to the indication on vehicle information display.
AIR PRESS FR		
AIR PRESS RR		
AIR PRESS RL		

Is the inspection result normal?

YES >> GO TO 6.
NO >> GO TO 2.

2.CHECK ALL TIRE PRESSURE SIGNAL

With CONSULT-III

1. Start the engine.
2. Select “DATA MONITOR” mode for “AIR PRESSURE MONITOR” with CONSULT-III.
3. Read out the value of “AIR PRESS FL”, “AIR PRESS FR”, “AIR PRESS RR” and “AIR PRESS RL”.

Monitored item	Condition	Display value
AIR PRESS FL	Start the engine and drive at a 40 km/h (25 MPH) or more for several minutes.	Approximately equal to the indication on vehicle information display.
AIR PRESS FR		
AIR PRESS RR		
AIR PRESS RL		

Are all tire pressure displayed 0 kPa?

YES >> GO TO 3.
NO >> GO TO 5.

3.CHECK HARNESS BETWEEN BCM AND TIRE PRESSURE RECEIVER

1. Turn the ignition switch “OFF”.
2. Disconnect BCM harness connector and tire pressure receiver harness connector.
3. Check continuity between BCM harness connector and tire pressure receiver harness connector.

BCM		Tire pressure receiver		Continuity
Connector	Terminal	Connector	Terminal	
M123	137	M101	1	Existed
	138		4	
	139		2	

4. Check continuity between BCM harness connector and ground.

BCM		—	Continuity
Connector	Terminal		
M123	137	Ground	Not existed
	138		
	139		

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace damage parts.

4.CHECK TIRE PRESSURE RECEIVER

Check tire pressure receiver. Refer to WT-37, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check BCM pin terminals for damage or loose connection with harness connector. If any items are damaged, repair or replace damaged parts.
NO >> Replace the tire pressure receiver.

5.CHECK TIRE PRESSURE MONITORING SYSTEM

With CONSULT-III

1. Drive at a speed of 40 km/h (25 MPH) or more for several minutes without stopping.
2. Check all tire pressures with CONSULT-III “DATA MONITOR” within 15 minutes after stopped vehicle.

Monitored item	Condition	Display value
AIR PRESS FL	Start the engine and drive at a 40 km/h (25 MPH) or more for several minutes.	Approximately equal to the indication on vehicle information display.
AIR PRESS FR		
AIR PRESS RR		
AIR PRESS RL		

Is the inspection result normal?

YES >> GO TO 6.
NO >> Replace BCM. Refer to BCS-85, "Removal and Installation".

6.CHECK TRANSMITTER

With CONSULT-III
1. Drive at a speed of 40 km/h (25 MPH) or more for several minutes without stopping.
2. Check all tire pressures with CONSULT-III “DATA MONITOR” within 5 minutes after stopped vehicle.

Monitored item	Condition	Display value
AIR PRESS FL	Start the engine and drive at a 40 km/h (25 MPH) or more for several minutes.	Approximately equal to the indication on vehicle information display.
AIR PRESS FR		
AIR PRESS RR		
AIR PRESS RL		

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace malfunction transmitter.

Special Repair Requirement

INFOID:0000000004346963

1.CHECK TIRE AIR PRESSURE

Check all tire air pressures. Refer to WT-106, "Tire Air Pressure".

Does all tire pressure data meet the specification?

YES >> GO TO 2.
NO >> Inspect or repair the tires or wheels and adjust the tire pressure to the specification.

2.PERFORM ID REGISTRATION

Perform ID registration. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

>> END

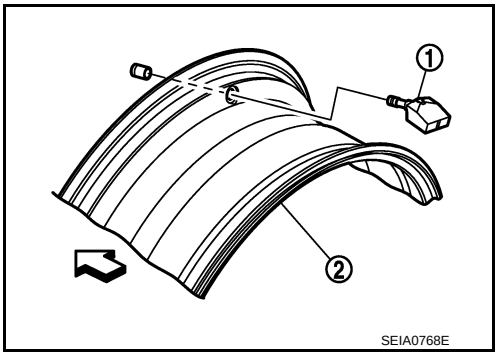
C1724, C1725, C1726, C1727 TRANSMITTER

Description

INFOID:0000000004346964

The transmitter (1) integrated with a valve is installed on a wheel (2), and transmits a detected air pressure signal by radio wave.

⇦ : Outside



DTC Logic

INFOID:0000000004346965

DTC DETECTION LOGIC

DTC	Display item	Malfunction detected condition	Possible case
C1724	[BATT VOLT LOW] FL	Battery voltage of front LH transmitter drops.	• Transmitter malfunction • Tire pressure receiver malfunction • BCM malfunction • Harness or connector
C1725	[BATT VOLT LOW] FR	Battery voltage of front RH transmitter drops.	
C1726	[BATT VOLT LOW] RR	Battery voltage of rear RH transmitter drops.	
C1727	[BATT VOLT LOW] RL	Battery voltage of rear LH transmitter drops.	

DTC CONFIRMATION PROCEDURE

1.DTC REPRODUCTION PROCEDURE

With CONSULT-III
1. Driving at a speed of 40 km/h (25 MPH) or more for 10minutes.
2. Perform BCM self-diagnosis.

Is DTC “C1724”, “C1725”, “C1726”, “C1727” detected?

YES >> Proceed to diagnosis procedure. Refer to WT-30, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000004346966

1.CHECK ID REGISTRATION

With CONSULT-III
1. Perform the ID registration of all transmitters. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".
2. Drive at a 40 km/h (25 MPH) or more for 10 minutes.
3. Check all tire pressure with CONSULT-III “DATA MONITOR” within 5 minutes.

Can ID registration of all transmitters be completed?

YES >> GO TO 2.
NO >> GO TO 4.

2.CHECK AIR PRESSURE SIGNAL

With CONSULT-III
1. Start the engine.
2. Select “DATA MONITOR” mode for “AIR PRESSURE MONITOR” with CONSULT-III.
3. Read out the value of “AIR PRESS FL”, “AIR PRESS FR”, “AIR PRESS RR” and “AIR PRESS RL”.

Monitored item	Condition	Display value
AIR PRESS FL	Start the engine and drive at a 40 km/h (25 MPH) or more for several minutes.	Approximately equal to the indication on vehicle information display.
AIR PRESS FR		
AIR PRESS RR		
AIR PRESS RL		

Are all tire pressures displayed 0 kPa?

YES >> GO TO 3.
NO >> GO TO 5.

3.CHECK HARNESS BETWEEN BCM AND TIRE PRESSURE RECEIVER

1. Turn the ignition switch OFF.
2. Disconnect BCM harness connector and tire pressure receiver harness connector.
3. Check continuity between BCM harness connector and tire pressure receiver harness connector.

BCM		Tire pressure receiver		Continuity
Connector	Terminal	Connector	Terminal	
M123	137	M101	1	Existed
	138		4	
	139		2	

4. Check continuity between BCM harness connector and ground.

BCM		—	Continuity
Connector	Terminal		
M123	137	Ground	Not existed
	138		
	139		

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace damaged parts.

4.CHECK TIRE PRESSURE RECEIVER

Check tire pressure receiver. Refer to WT-37, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check BCM pin terminals for damage or loose connection with harness connector. If any items are damaged, repair or replace damaged parts.
NO >> Replace the tire pressure receiver.

5.CHECK ID REGISTRATION

Perform ID registration of all transmitters. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

Can ID registration of all transmitters be completed?

YES >> GO TO 6.
NO >> Replace malfunctioning transmitter.

6.CHECK TIRE PRESSURE MONITORING SYSTEM

With CONSULT-III

1. Drive at a speed of 40 km/h (25 MPH) or more for several minutes without stopping.
2. Check all tire pressures with CONSULT-III “DATA MONITOR” within 15 minutes after stopped vehicle.

Monitored item	Condition	Display value
AIR PRESS FL	Start the engine and drive at a 40 km/h (25 MPH) or more for several minutes.	Approximately equal to the indication on vehicle information display.
AIR PRESS FR		
AIR PRESS RR		
AIR PRESS RL		

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace BCM. Refer to BCS-85, "Removal and Installation".

Special Repair Requirement

INFOID:0000000004346967

1.CHECK TIRE AIR PRESSURE

Check all tire air pressures. Refer to WT-106, "Tire Air Pressure".

Does all tire pressure data meet the specification?

YES >> GO TO 2.
NO >> Inspect or repair the tires or wheels and adjust the tire pressure to the specification.

2.PERFORM ID REGISTRATION

Perform ID registration. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

>> END

C1729 VEHICLE SPEED SIGNAL

Description

INFOID:0000000004346968

BCM detects no vehicle speed signal.

DTC Logic

INFOID:0000000004346969

DTC DETECTION LOGIC

DTC number	Trouble diagnosis name	DTC detecting condition	Possible case
C1729	VHCL SPEED SIG ERR	Vehicle speed signal error.	• CAN communication error • Unified meter and A/C amp. malfunction

DTC CONFIRMATION PROCEDURE

1.DTC REPRODUCTION PROCEDURE

With CONSULT-III
1. Drive at a speed of 40 km/h (25 MPH) or more for several minutes without stopping.
2. Perform BCM self-diagnosis.

Is DTC “C1729” detected?

YES >> Proceed to diagnosis procedure. Refer to WT-33, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000004346970

1.CHECK UNIFIED METER AND A/C AMP. SELF-DIAGNOSIS

With CONSULT-III
Perform unified meter and A/C amp. self-diagnosis.

Is any DTC detected?

YES >> Check the DTC.
NO >> Check unified meter and A/C amp. HAC-102, "Diagnosis Procedure".

Special Repair Requirement

INFOID:0000000004346971

1.CHECK TIRE AIR PRESSURE

Check all tire air pressures. Refer to WT-106, "Tire Air Pressure".

Does all tire pressure data meet the specification?

YES >> GO TO 2.
NO >> Inspect or repair the tires or wheels and adjust the tire pressure to the specification.

2.PERFORM ID REGISTRATION

Perform ID registration. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

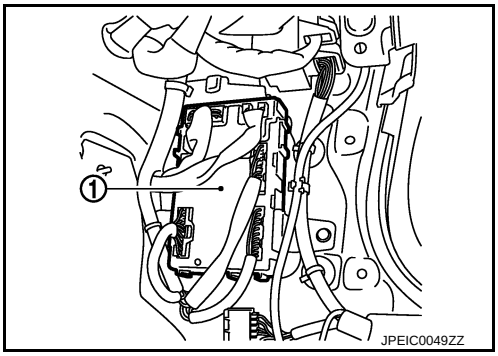
>> END

C1734 BCM

Description

INFOID:0000000004346972

The BCM (1) reads the air pressure signal received by the tire pressure receiver, and controls the low tire pressure warning lamp and the buzzer operations. It also has a judgment function to detect a system malfunction.



DTC Logic

INFOID:0000000004346973

DTC DETECTION LOGIC

DTC	Display item	Malfunction detected condition	Possible case
C1734	CONTROL UNIT	Tire pressure monitoring system malfunction in BCM	BCM malfunction

DTC CONFIRMATION PROCEDURE

1.DTC REPRODUCTION PROCEDURE

With CONSULT-III
1. Drive at a speed of 40 km/h (25 MPH) or more for several minutes without stopping.
2. Perform BCM self-diagnosis with CONSULT-III “DATA MONITOR” within 15 minutes after stopped vehicle.

Is DTC “C1734” detected?

YES >> Proceed to diagnosis procedure. Refer to WT-34, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000004346974

1.CHECK SELF-DIAGNOSTIC RESULTS

With CONSULT-III
1. On “SELECT DIAG” mode, select the “SELF-DIAG RESULT” screen.
2. Check display contents in self-diagnostic results.

Does self-diagnostic results indicate any malfunction?

YES >> Perform trouble diagnosis. Refer to WT-83, "DTC Index".
NO >> GO TO 2.

2.CHECK BCM POWER SUPPLY CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect BCM harness connector.
3. Check voltage between BCM harness connector terminals and ground.

BCM		—	Voltage
Connector	Terminal		
M118	1	Ground	Battery voltage
M119	11		

Is the power supply normal?

YES >> GO TO 3.
NO >> Check the following. If any items are damaged, repair or replace damage parts.
- 40A fusible link [No. K located in the fuse block]. Refer to PG-100, "Fuse and Fusible Link Arrangement".

- 10A fuse [No. 10 located in the fuse block (J/B)]. Refer to PG-99, "Fuse, Connector and Terminal Arrangement".
- Harness for short or open between battery and BCM harness connector M118 terminal 1.
- Harness for short or open between battery and BCM harness connector M119 terminal 11.
- Check Battery voltage.

3.CHECK BCM GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		—	Continuity
Connector	Terminal		
M119	13	Ground	Existed

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair open circuit or short to power in harness or connectors.

4.CHECK HARNESS BETWEEN BCM AND TIRE PRESSURE RECEIVER

1. Disconnect tire pressure receiver harness connector.
2. Check continuity between BCM harness connector and tire pressure receiver harness connector.

BCM		Tire pressure receiver		Continuity
Connector	Terminal	Connector	Terminal	
M123	137	M101	1	Existed
	138		4	
	139		2	

3. Check continuity between BCM harness connector and ground.

BCM		—	Continuity
Connector	Terminal		
M123	137	Ground	Not existed
	138		
	139		

Is the inspection result normal?

YES >> GO TO 5.
NO >> Repair or replace damaged parts.

5.CHECK BCM

Check BCM input/output signal. Refer to WT-49, "Reference Value".

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 6.

6.CHECK BCM HARNESS CONNECTOR

Check BCM pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-85, "Removal and Installation".
NO >> Repair or replace damaged parts.

Special Repair Requirement

INFOID:0000000004346975

1.CHECK TIRE AIR PRESSURE

Check all tire air pressures. Refer to WT-106, "Tire Air Pressure".

Does all tire pressure data meet the specification?

YES >> GO TO 2.
NO >> Inspect or repair the tires or wheels and adjust the tire pressure to the specification.

2.PERFORM ID REGISTRATION

Perform ID registration. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

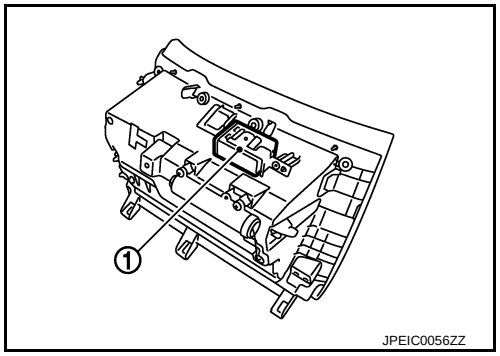
>> END

TIRE PRESSURE RECEIVER

Description

INFOID:0000000004346976

The tire pressure receiver (1) receives the air pressure signal transmitted by the transmitter in each wheel.



Component Function Check

INFOID:0000000004346977

1. TIRE PRESSURE MONITORING SYSTEM OPERATION

With CONSULT-III

1. Drive at a speed 40 km/h (25 MPH) or more for 10 minutes.
2. Check tire pressure with CONSULT-III “DATA MONITOR” within 5 minutes.

Monitored item	Condition	Display value
AIR PRESS FL	Start engine and drive at a 40 km/h (25MPH) or more for 10 minutes.	Approximately equal to the indication on vehicle information display.
AIR PRESS FR		
AIR PRESS RR		
AIR PRESS RL		

Is the inspection result normal?

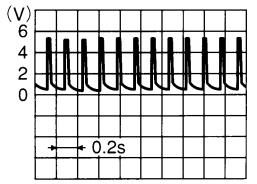
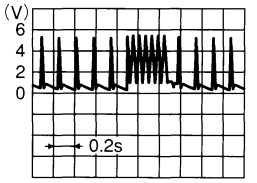
YES >> INSPECTION END
NO-1 >> Perform BCM self-diagnosis. Refer to WT-83, "DTC Index".
NO-2 >> Proceed to diagnosis procedure. Refer to WT-37, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000004346978

1. CHECK TIRE PRESSURE RECEIVER SIGNAL

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Check tire pressure receiver connector and ground signal with oscilloscope.

Tire pressure receiver		—	Condition	Voltage (Approx.)
Connector	Terminal			
M101	2	Ground	Standby state	 OCC3881D
			When receiving the signal from the transmitter	 OCC3880D

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 2.

2.CHECK TIRE PRESSURE RECEIVER INPUT VOLTAGE

1. Disconnect tire pressure receiver connector.
2. Check voltage between tire pressure receiver connector and ground.

Tire pressure receiver		—	Voltage (Approx.)
Connector	Terminal		
M101	4	Ground	5.0 V

Is the inspection result normal?

YES >> GO TO 3.
NO >> Check BCM harness and connector.

3.CHECK TIRE PRESSURE RECEIVER GROUND CIRCUIT

1. Disconnect BCM harness connector.
2. Check continuity between BCM harness connector and tire pressure receiver connector.

BCM		Tire pressure receiver		Continuity
Connector	Terminal	Connector	Terminal	
M123	137	M101	1	Existed

3. Check continuity between BCM harness connector and ground.

BCM		—	Continuity
Connector	Terminal		
M123	137	Ground	Not existed

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace damaged parts.

4.CHECK BCM CIRCUIT

Inspect the BCM circuit. Refer to BCS-41, "Diagnosis Procedure".

Is the BCM circuit normal?

YES >> Replace tire pressure receiver.

NO >> Repair or replace BCM circuit. Replace BCM. Refer to BCS-85, "Removal and Installation".

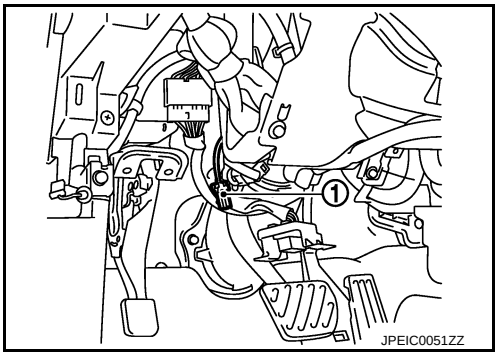
TIRE PRESSURE WARNING CHECK SWITCH

Description

INFOID:0000000004346979

The following item can be checked by grounding the tire pressure warning check switch harness connector terminal (1).

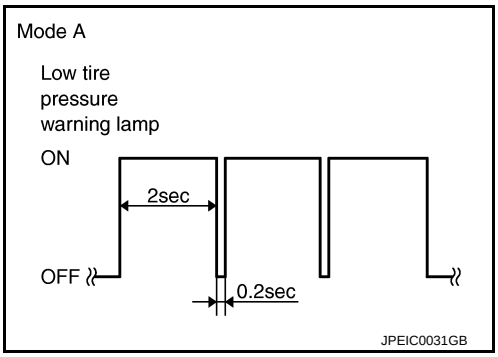
- The low tire pressure warning lamp in the combination meter blink according to the self-diagnostic results.



NOTE:

If low tire pressure warning lamp blinks as shown in the figure, the system is normal.

- This mode shows transmitter status is in OFF-mode.
  Perform transmitter wake up operation. Refer to WT-6, "TRANSMITTER WAKE UP OPERATION : Special Repair Requirement".



Component Function Check

INFOID:0000000004346980

1.CHECK LOW TIRE PRESSURE WARNING LAMP OPERATION

Check if low tire pressure warning lamp blinks 1 second and then goes off after turning ignition switch ON.

Is inspection result normal?

YES >> GO TO 2.
NO >> Check low tire pressure warning lamp. Refer to WT-42, "Diagnosis Procedure".

2.CHECK TIRE PRESSURE WARNING CHECK SWITCH OPERATION

1. Ground the tire pressure warning check switch harness connector terminal.
2. Check the low tire pressure warning lamp blinks.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Proceed to diagnosis procedure. Refer to WT-40, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000004346981

1.CHECK TIRE PRESSURE WARNING CHECK SWITCH POWER SUPPLY CIRCUIT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Check voltage between tire pressure warning check switch connector and ground.

Tire pressure warning check switch		—	Voltage (Approx.)
Connector	Terminal		
M23	1	Ground	11.8 V

Is the inspection result normal?

YES >> Repair or replace BCM circuit. Replace BCM. Refer to BCS-85, "Removal and Installation".
NO >> GO TO 2.

2. CHECK TIRE PRESSURE WARNING CHECK SWITCH CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect BCM harness connector
3. Check continuity between BCM harness connector and tire pressure warning check switch connector.

BCM		Tire pressure warning check switch		Continuity
Connector	Terminal	Connector	Terminal	Existed
M123	149	M23	1	

4. Check continuity between BCM harness connector and ground.

BCM		—	Continuity
Connector	Terminal		
M123	149	Ground	Not existed

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace damaged parts.

3. CHECK BCM

Check BCM input/output signal. Refer to WT-49, "Reference Value".

Is the inspection result normal?

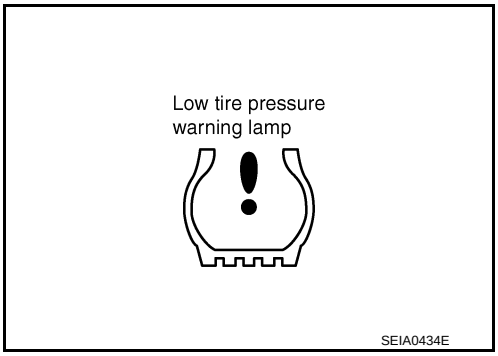
YES >> INSPECTION END
NO >> Check BCM pin terminals for damage or loose connection with harness connector. If any items are damaged, repair or replace damaged parts. Replace BCM. Refer to BCS-85, "Removal and Installation".

LOW TIRE PRESSURE WARNING LAMP

Description

INFOID:0000000004346982

The combination meter receives tire pressure status from the unified meter and A/C amp. via CAN communication.
When BCM judges from a transmitter signal that tire pressure is insufficient, BCM transmits a signal to unified meter and A/C amp. via CAN communication. unified meter and A/C amp. turns on the low tire pressure warning lamp mounted on the combination meter.



Condition	Low tire pressure warning lamp
Ignition switch OFF	OFF
Ignition switch ON	Warning lamp turns on for 1second, then turns off.
Less than 182.7 kPa (1.9 kg/cm^2, 26 psi) [NOTE]	ON
Tire pressure monitoring system malfunction [Other diagnostic item]	Warning lamp blinks 1 min, then turns on.

NOTE: Standard air pressure is for 230 kPa (2.3 kg/cm^2, 33 psi) vehicles.

Component Function Check

INFOID:0000000004346983

1.CHECK LOW TIRE PRESSURE WARNING LAMP

Check if low tire pressure warning lamp blinks for 1 second and then goes off after turning the ignition switch ON.

Is inspection result normal?

YES >> INSPECTION END
NO >> Proceed to diagnosis procedure. Refer to WT-42, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000004346984

1.CHECK SELF DIAGNOSTIC RESULTS

Perform self-diagnosis of tire pressure monitoring system.

Is inspection result normal?

YES >> GO TO 2.
NO >> Check the DTC.

2.CHECK LOW TIRE PRESSURE WARNING LAMP

Check if low tire pressure warning lamp blinks 1 second and then goes off after turning the ignition switch ON.

Is inspection result normal?

YES >> INSPECTION END
NO >> Check combination meter.

POWER SUPPLY AND GROUND CIRCUIT
BCM (BODY CONTROL MODULE)

BCM (BODY CONTROL MODULE) : Diagnosis Procedure

INFOID:0000000004346985

1.CHECK FUSE AND FUSIBLE LINK

Check that the following fuse and fusible link are not blown.

Signal name	Fuse and fusible link No.
Battery power supply	K
	10

Is the fuse fusing?

YES >> Replace the blown fuse or fusible link after repairing the affected circuit if a fuse or fusible link is blown.
NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connectors.
3. Check voltage between BCM harness connector and ground.

Terminals			Voltage (Approx.)
(+)		(–)	
BCM		Ground	
Connector	Terminal		
M118	1		Battery voltage
M119	11		

Is the measurement value normal?

YES >> GO TO 3.
NO >> Repair harness or connector.

3.CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M119	13		Existed

Does continuity exist?

YES >> INSPECTION END
NO >> Repair harness or connector.

UNIFIED METER AND A/C AMP.

UNIFIED METER AND A/C AMP. : Diagnosis Procedure

INFOID:0000000004346986

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	6
Ignition switch ACC or ON	19
Ignition switch ON or START	3

Is the inspection result normal?

YES >> GO TO 2.
NO >> Be sure to eliminate cause of malfunction before installing new fuse.

2.CHECK POWER SUPPLY CIRCUIT

Check voltage between unified meter and A/C amp. harness connector and ground.

Terminals				Ignition switch position	Value (Approx.)
(+)			(-)		
Unified meter and A/C amp.	Terminal	Signal name			
M67	54	Battery power supply	Ground	OFF	Battery voltage
	41	ACC power supply		ACC	Battery voltage
	53	Ignition signal		ON	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.
NO >> Check harness between unified meter and A/C amp. and fuse.

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect unified meter and A/C amp. connector.
3. Check continuity between unified meter and A/C amp. harness connector and ground.

Unified meter and A/C amp.		Ground	Continuity
Connector	Terminal		
M67	55		Existed
	71		Existed

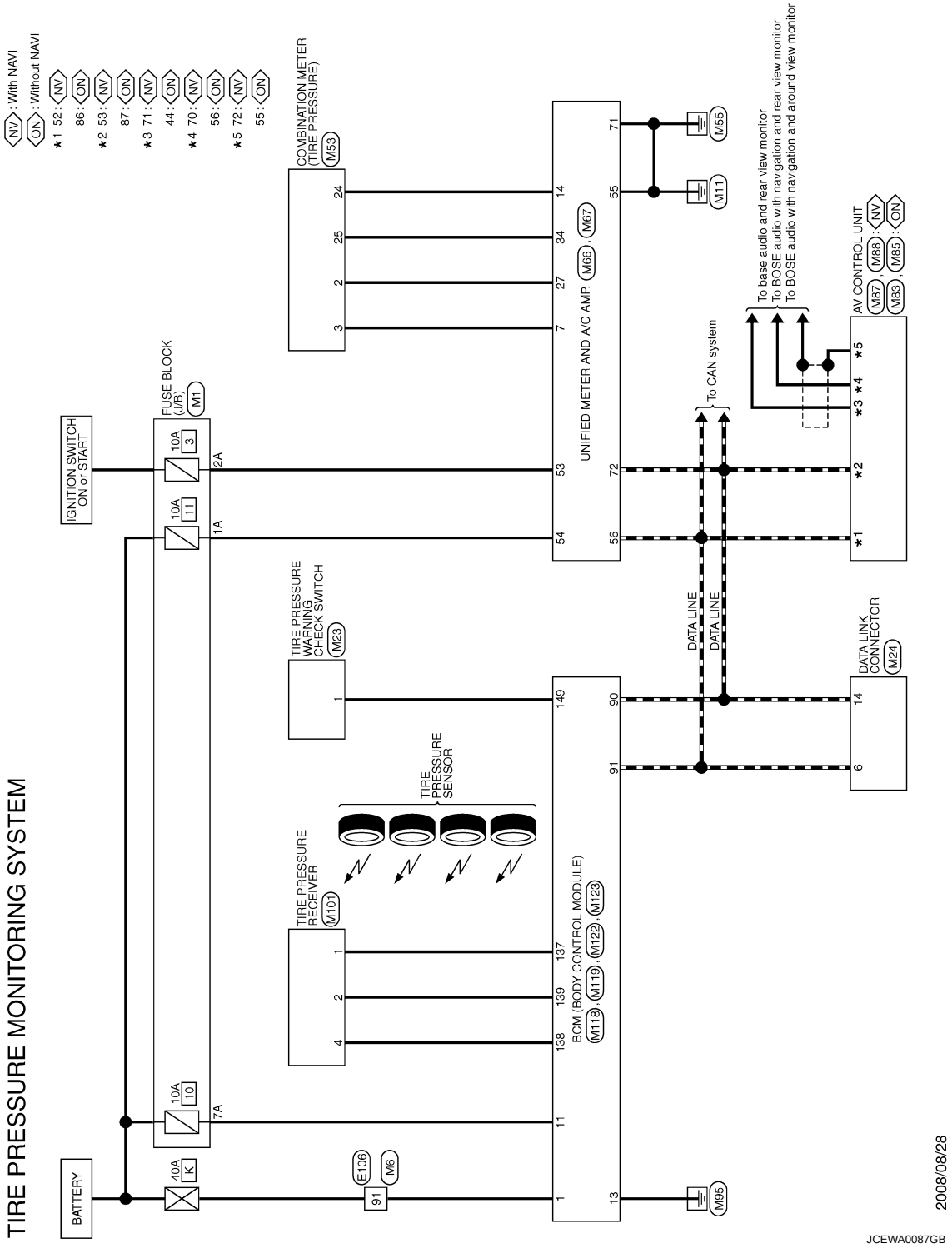
Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair harness or connector.

TPMS

Wiring Diagram - TIRE PRESSURE MONITORING SYSTEM -

INFOID:0000000004346987



TIRE PRESSURE MONITORING SYSTEM

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
91	W	–

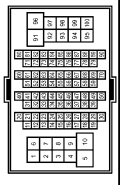
Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-M2

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1A	GR	–
2A	G	–
7A	R	–

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

H.S.



Terminal No.	Color of Wire	Signal Name [Specification]
91	W	–

Connector No.	M23
Connector Name	TIRE PRESSURE WARNING CHECK SWITCH
Connector Type	TK02FW

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	–

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
6	L	–
14	P	–

Connector No.	M53
Connector Name	COMBINATION METER
Connector Type	TH40FW-NH

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
2	LG	COMM (METER->AMP.)
3	GR	COMM (AMP.->METER)
24	BR	COMM (LCD->AMP.)
25	Y	COMM (AMP.->LCD)

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
7	GR	COMMUNICATION SIGNAL (AMP.->METER)
14	BR	COMMUNICATION SIGNAL (LCD->AMP.)
27	LG	COMMUNICATION SIGNAL (METER->AMP.)
34	Y	COMMUNICATION SIGNAL (AMP.->LCD)

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH32FW-NH

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
53	G	IGNITION POWER SUPPLY
54	Y	BATTERY POWER SUPPLY
55	B	GROUND
56	L	CAN-H
71	B	GROUND
72	P	CAN-L

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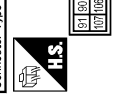
TIRE PRESSURE MONITORING SYSTEM

Connector No.	M83
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH24FW-NH

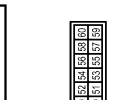
Terminal No.	Color of Wire	Signal Name [Specification]
44	BR	COMM (DISP->CONT)
55	SHIELD	SHIELD
56	Y	COMM (CONT->DISP)

Connector No.	M85
Connector Name	AV CONTROL UNIT (WITHOUT NAVI)
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
86	L	CAN-H
87	P	CAN-L

Connector No.	M87
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH40FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
52	L	CAN-H
53	P	CAN-L

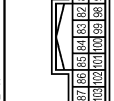
Connector No.	M88
Connector Name	AV CONTROL UNIT (WITH NAVI)
Connector Type	TH12FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
70	BR	COMM (CONT->DISP)
71	Y	COMM (DISP->CONT)
72	SHIELD	SHIELD

Connector No.	M101
Connector Name	TIRE PRESSURE RECEIVER
Connector Type	TK04FW

Terminal No.	Color of Wire	Signal Name [Specification]
1	O	GND
2	L	SIGNAL
4	Y	BATTERY

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M03FB-LC



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	BAT (F/L)

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
11	R	BAT (FUSE)
13	B	GND

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH

Terminal No.	Color of Wire	Signal Name [Specification]
90	P	CAN-L
91	L	CAN-H

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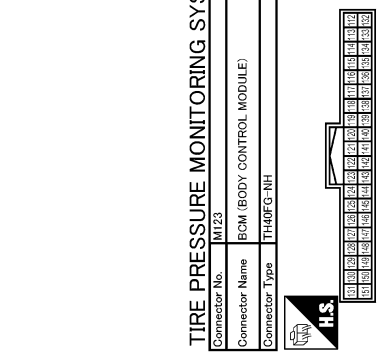
TIRE PRESSURE MONITORING SYSTEM

Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH



Terminal No.	Color of Wire	Signal Name [Specification]
137	O	RECEIVER/SENSOR GND
138	Y	RECEIVER/SENSOR POWER SUPPLY
139	L	TIRE PRESSURE RECEIVER COMM
149	W	TIRE PRESS WARNING CHECK SW

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ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:0000000004919766

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	Off
	Front wiper switch HI	On
FR WIPER LOW	Other than front wiper switch LO	Off
	Front wiper switch LO	On
FR WASHER SW	Front washer switch OFF	Off
	Front washer switch ON	On
FR WIPER INT	Other than front wiper switch INT	Off
	Front wiper switch INT	On
FR WIPER STOP	Front wiper is not in STOP position	Off
	Front wiper is in STOP position	On
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	Wiper intermittent dial position
RR WIPER ON	Other than rear wiper switch ON	Off
	Rear wiper switch ON	On
RR WIPER INT	Other than rear wiper switch INT	Off
	Rear wiper switch INT	On
RR WASHER SW	Rear washer switch OFF	Off
	Rear washer switch ON	On
RR WIPER STOP	Rear wiper is in STOP position	Off
	Rear wiper is not in STOP position	On
TURN SIGNAL R	Other than turn signal switch RH	Off
	Turn signal switch RH	On
TURN SIGNAL L	Other than turn signal switch LH	Off
	Turn signal switch LH	On
TAIL LAMP SW	Other than lighting switch 1ST and 2ND	Off
	Lighting switch 1ST or 2ND	On
HI BEAM SW	Other than lighting switch HI	Off
	Lighting switch HI	On
HEAD LAMP SW 1	Other than lighting switch 2ND	Off
	Lighting switch 2ND	On
HEAD LAMP SW 2	Other than lighting switch 2ND	Off
	Lighting switch 2ND	On
PASSING SW	Other than lighting switch PASS	Off
	Lighting switch PASS	On
AUTO LIGHT SW	Other than lighting switch AUTO	Off
	Lighting switch AUTO	On
FR FOG SW	Front fog lamp switch OFF	Off
	Front fog lamp switch ON	On

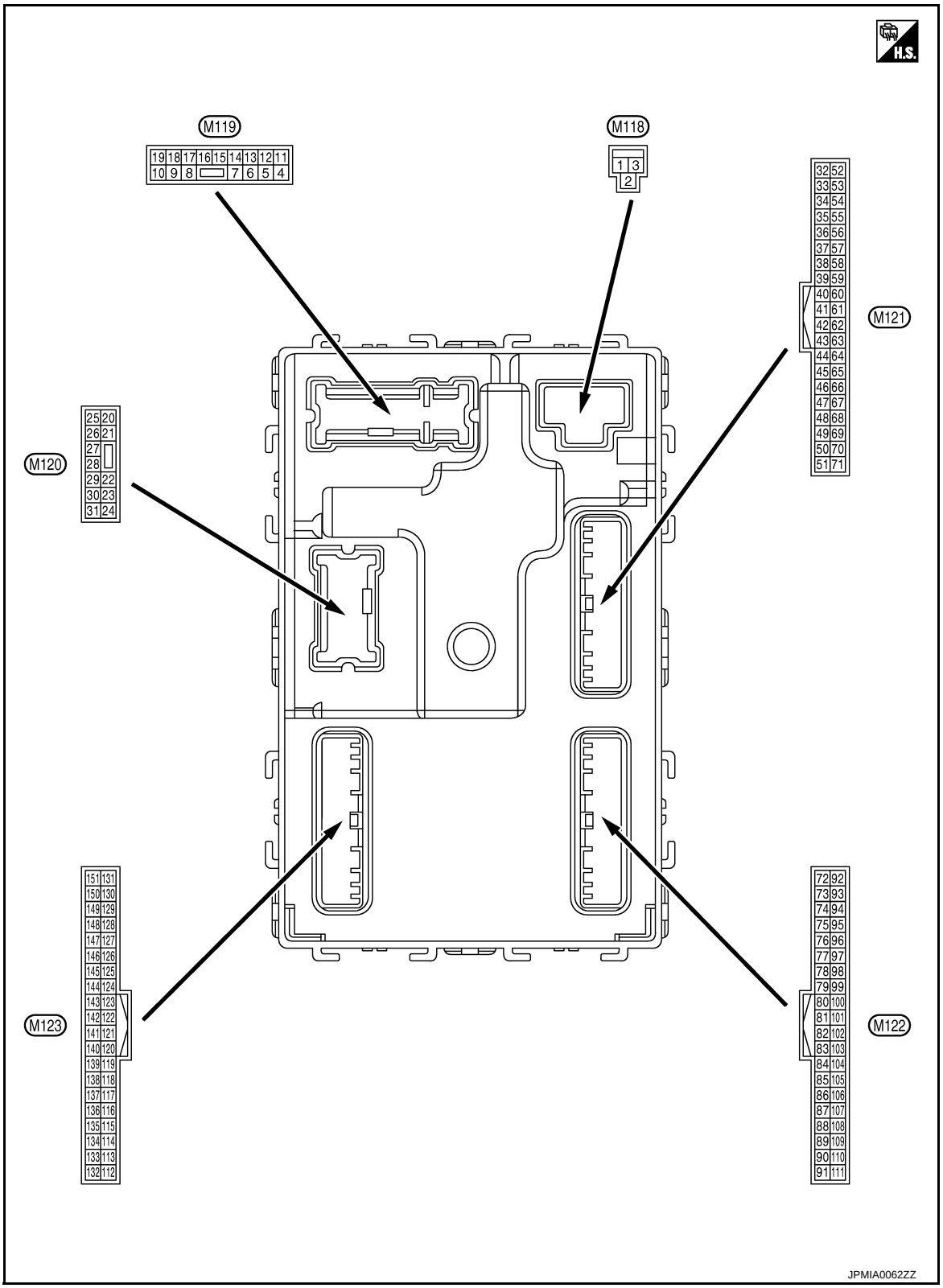
Monitor Item	Condition	Value/Status
RR FOG SW	**NOTE:** The item is indicated, but not monitored.	Off
DOOR SW-DR	Driver door closed	Off
	Driver door opened	On
DOOR SW-AS	Passenger door closed	Off
	Passenger door opened	On
DOOR SW-RR	Rear RH door closed	Off
	Rear RH door opened	On
DOOR SW-RL	Rear LH door closed	Off
	Rear LH door opened	On
DOOR SW-BK	Back door closed	Off
	Back door opened	On
CDL LOCK SW	Other than power door lock switch LOCK	Off
	Power door lock switch LOCK	On
CDL UNLOCK SW	Other than power door lock switch UNLOCK	Off
	Power door lock switch UNLOCK	On
KEY CYL LK-SW	Other than driver door key cylinder LOCK position	Off
	Driver door key cylinder LOCK position	On
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK position	Off
	Driver door key cylinder UNLOCK position	On
KEY CYL SW-TR	**NOTE:** The item is indicated, but not monitored.	Off
HAZARD SW	Hazard switch is OFF	Off
	Hazard switch is ON	On
REAR DEF SW	**NOTE:** The item is indicated, but not monitored.	Off
TR CANCEL SW	**NOTE:** The item is indicated, but not monitored.	Off
TR/BD OPEN SW	Back door opener switch OFF	Off
	While the back door opener switch is turned ON	On
TRNK/HAT MNTR	**NOTE:** The item is indicated, but not monitored.	Off
RKE-LOCK	LOCK button of the key is not pressed	Off
	LOCK button of the key is pressed	On
RKE-UNLOCK	UNLOCK button of the key is not pressed	Off
	UNLOCK button of the key is pressed	On
RKE-TR/BD	**NOTE:** The item is indicated, but not monitored.	Off
RKE-PANIC	PANIC button of the key is not pressed	Off
	PANIC button of the key is pressed	On
RKE-P/W OPEN	UNLOCK button of the key is not pressed	Off
	UNLOCK button of the key is pressed and held	On
RKE-MODE CHG	LOCK/UNLOCK button of the key is not pressed and held simultaneously	Off
	LOCK/UNLOCK button of the key is pressed and held simultaneously	On

Monitor Item	Condition	Value/Status
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5 V
	Dark outside of the vehicle	Close to 0 V
REQ SW -DR	Driver door request switch is not pressed	Off
	Driver door request switch is pressed	On
REQ SW -AS	Passenger door request switch is not pressed	Off
	Passenger door request switch is pressed	On
REQ SW -RR	**NOTE:** The item is indicated, but not monitored.	Off
REQ SW -RL	**NOTE:** The item is indicated, but not monitored.	Off
REQ SW -BD/TR	Back door request switch is not pressed	Off
	Back door request switch is pressed	On
PUSH SW	Push-button ignition switch (push switch) is not pressed	Off
	Push-button ignition switch (push switch) is pressed	On
IGN RLY2 -F/B	Ignition switch in OFF or ACC position	Off
	Ignition switch in ON position	On
ACC RLY -F/B	**NOTE:** The item is indicated, but not monitored.	Off
CLUCH SW	**NOTE:** The item is indicated, but not monitored.	Off
BRAKE SW 1	The brake pedal is depressed when No. 7 fuse is blown	Off
	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal	On
BRAKE SW 2	The brake pedal is not depressed	Off
	The brake pedal is depressed	On
DETE/CANCL SW	Selector lever in P position	Off
	Selector lever in any position other than P	On
SFT PN/N SW	Selector lever in any position other than P and N	Off
	Selector lever in P or N position	On
S/L -LOCK	Steering is unlocked	Off
	Steering is locked	On
S/L -UNLOCK	Steering is locked	Off
	Steering is unlocked	On
S/L RELAY-F/B	Ignition switch in OFF or ACC position	Off
	Ignition switch in ON position	On
UNLK SEN -DR	Driver door is unlocked	Off
	Driver door is locked	On
PUSH SW -IPDM	Push-button ignition switch (push-switch) is not pressed	Off
	Push-button ignition switch (push-switch) is pressed	On
IGN RLY1 -F/B	Ignition switch in OFF or ACC position	Off
	Ignition switch in ON position	On
DETE SW -IPDM	Selector lever in any position other than P	Off
	Selector lever in P position	On
SFT PN -IPDM	Selector lever in any position other than P and N	Off
	Selector lever in P or N position	On

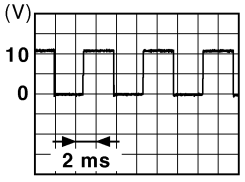
Monitor Item	Condition	Value/Status
SFT P -MET	Selector lever in any position other than P	Off
	Selector lever in P position	On
SFT N -MET	Selector lever in any position other than N	Off
	Selector lever in N position	On
ENGINE STATE	Engine stopped	Stop
	While the engine stalls	Stall
	At engine cranking	Crank
	Engine running	Run
S/L LOCK-IPDM	Steering is unlocked	Off
	Steering is locked	On
S/L UNLK-IPDM	Steering is locked	Off
	Steering is unlocked	On
S/L RELAY-REQ	Steering lock system is not the LOCK condition and the changing condition from LOCK to UNLOCK.	Off
	Steering lock system is the LOCK condition or the changing condition from LOCK to UNLOCK.	On
VEH SPEED 1	While driving	Equivalent to speedometer reading
VEH SPEED 2	While driving	Equivalent to speedometer reading
DOOR STAT-DR	Driver door is locked	LOCK
	Wait with selective UNLOCK operation (5 seconds)	READY
	Driver door is unlocked	UNLOCK
DOOR STAT-AS	Passenger door is locked	LOCK
	Wait with selective UNLOCK operation (5 seconds)	READY
	Passenger door is unlocked	UNLOCK
ID OK FLAG	Steering is locked	Reset
	Steering is unlocked	Set
PRMT ENG STRT	The engine start is prohibited	Reset
	The engine start is permitted	Set
PRMT RKE STRT	**NOTE:** The item is indicated, but not monitored.	Reset
KEY SW -SLOT	The key is not inserted into key slot	Off
	The key is inserted into key slot	On
RKE OPE COUN1	During the operation of the key	Operation frequency of the key
RKE OPE COUN2	**NOTE:** The item is indicated, but not monitored.	—
CONFRM ID ALL	The key ID that the key slot receives does not accord with any key ID registered to BCM.	Yet
	The key ID that the key slot receives accords with any key ID registered to BCM.	Done
CONFIRM ID4	The key ID that the key slot receives does not accord with the fourth key ID registered to BCM.	Yet
	The key ID that the key slot receives accords with the fourth key ID registered to BCM.	Done
CONFIRM ID3	The key ID that the key slot receives does not accord with the third key ID registered to BCM.	Yet
	The key ID that the key slot receives accords with the third key ID registered to BCM.	Done

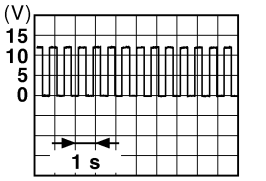
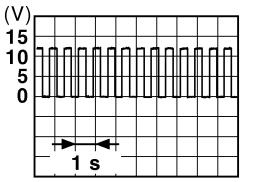
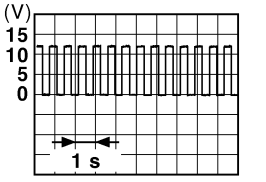
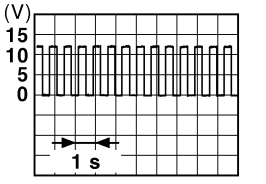
Monitor Item	Condition	Value/Status
CONFIRM ID2	The key ID that the key slot receives does not accord with the second key ID registered to BCM.	Yet
	The key ID that the key slot receives accords with the second key ID registered to BCM.	Done
CONFIRM ID1	The key ID that the key slot receives does not accord with the first key ID registered to BCM.	Yet
	The key ID that the key slot receives accords with the first key ID registered to BCM.	Done
TP 4	The ID of fourth key is not registered to BCM	Yet
	The ID of fourth key is registered to BCM	Done
TP 3	The ID of third key is not registered to BCM	Yet
	The ID of third key is registered to BCM	Done
TP 2	The ID of second key is not registered to BCM	Yet
	The ID of second key is registered to BCM	Done
TP 1	The ID of first key is not registered to BCM	Yet
	The ID of first key is registered to BCM	Done
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire
ID REGST FL1	ID of front LH tire transmitter is registered	Done
	ID of front LH tire transmitter is not registered	Yet
ID REGST FR1	ID of front RH tire transmitter is registered	Done
	ID of front RH tire transmitter is not registered	Yet
ID REGST RR1	ID of rear RH tire transmitter is registered	Done
	ID of rear RH tire transmitter is not registered	Yet
ID REGST RL1	ID of rear LH tire transmitter is registered	Done
	ID of rear LH tire transmitter is not registered	Yet
WARNING LAMP	Tire pressure indicator OFF	Off
	Tire pressure indicator ON	On
BUZZER	Tire pressure warning alarm is not sounding	Off
	Tire pressure warning alarm is sounding	On

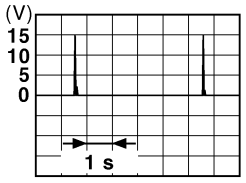
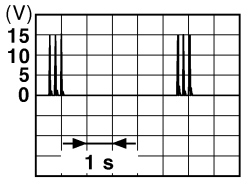
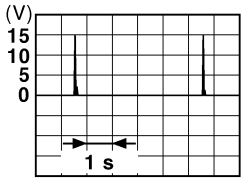
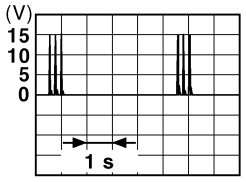
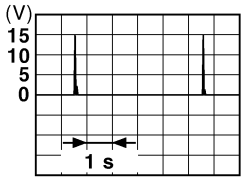
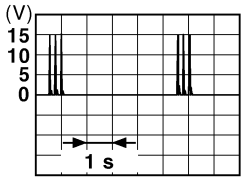
TERMINAL LAYOUT

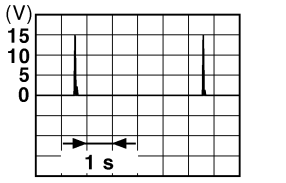
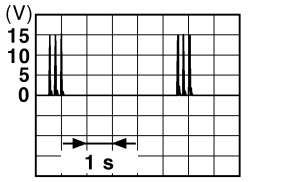
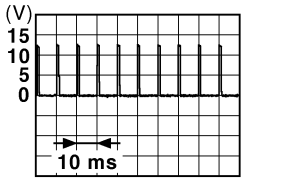
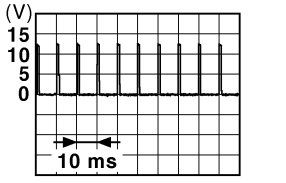


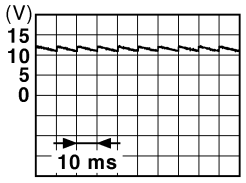
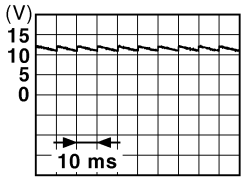
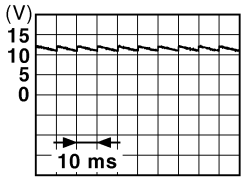
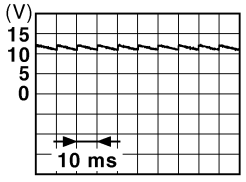
PHYSICAL VALUES

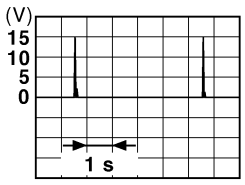
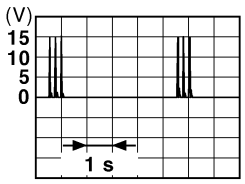
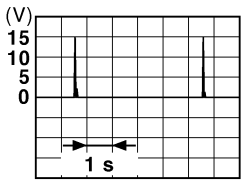
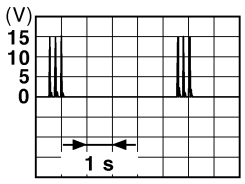
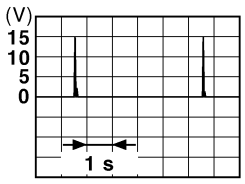
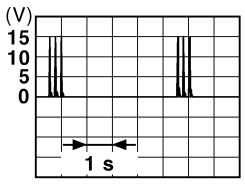
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	–					
1 (W)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (Y)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF		Battery voltage
3 (O)	Ground	P/W power supply (RAP)	Output	Ignition switch ON		Battery voltage
4 (LG)	Ground	Interior room lamp power supply	Output	Interior room lamp battery saver is activated. (Cuts the interior room lamp power supply)		0 V
				Interior room lamp battery saver is not activated. (Outputs the interior room lamp power supply)		Battery voltage
5 (L)	Ground	Passenger door UNLOCK	Output	Passenger door	UNLOCK (Actuator is activated)	Battery voltage
					Other than UNLOCK (Actuator is not activated)	0 V
7 (Y)	Ground	Step lamp	Output	Step lamp	ON	0 V
					OFF	Battery voltage
8 (V)	Ground	All doors, fuel lid LOCK	Output	All doors	LOCK (Actuator is activated)	Battery voltage
					Other than LOCK (Actuator is not activated)	0 V
9 (G)	Ground	Driver door, fuel lid UNLOCK	Output	Driver door	UNLOCK (Actuator is activated)	Battery voltage
					Other than UNLOCK (Actuator is not activated)	0 V
10 (BR)	Ground	Rear RH door and rear LH door UNLOCK	Output	Rear RH door and rear LH door	UNLOCK (Actuator is activated)	Battery voltage
					Other than UNLOCK (Actuator is not activated)	0 V
11 (R)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
13 (B)	Ground	Ground	—	Ignition switch ON		0 V
14 (W)	Ground	Push-button ignition switch illumination ground	Output	Tail lamp	OFF	0 V
					ON	**NOTE:** When the illumination brightening/dimming level is in the neutral position  JSNIA0010GB
15 (Y)	Ground	ACC indicator lamp	Output	Ignition switch	OFF or ON	Battery voltage
					ACC	0 V

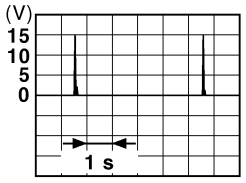
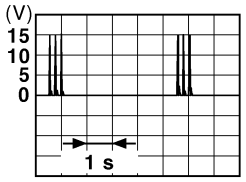
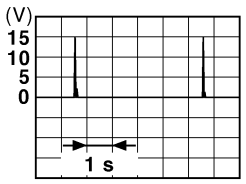
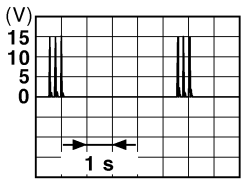
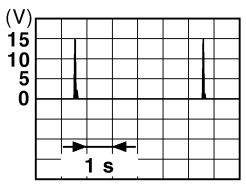
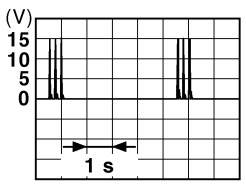
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
17 (W)	Ground	Turn signal RH (Front)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	 PKID0926E 6.5 V
18 (O)	Ground	Turn signal LH (Front)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 PKID0926E 6.5 V
19 (V)	Ground	Room lamp timer control	Output	Interior room lamp	OFF	Battery voltage
					ON	0 V
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	 PKID0926E 6.5 V
23 (G)	Ground	Back door open	Output	Back door	OPEN (Back door opener actuator is activated)	Battery voltage
					Other than OPEN (Back door opener actuator is not activated)	0 V
25 (G)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 PKID0926E 6.5 V
26 (G)	Ground	Rear wiper	Output	Rear wiper	OFF (Stopped)	0 V
					ON (Operated)	Battery voltage

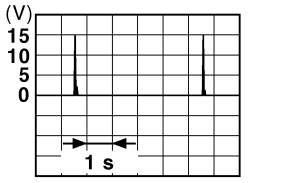
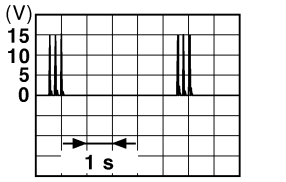
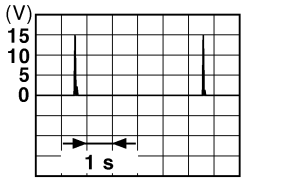
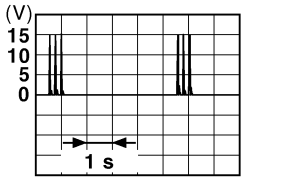
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
34 (SB)	Ground	Luggage room antenna (–)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
35 (V)	Ground	Luggage room antenna (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
38 (B)	Ground	Back door antenna (–)	Output	When the back door opener request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB

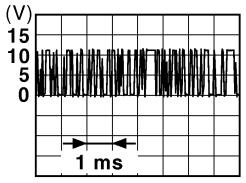
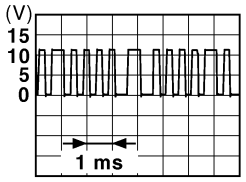
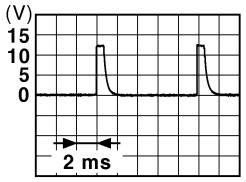
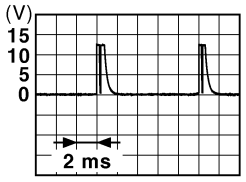
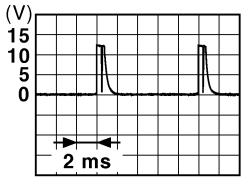
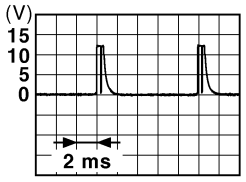
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
39 (W)	Ground	Back door antenna (+)	Output	When the back door opener request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
47 (Y)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	Battery voltage
					ON	0 V
52 (SB)	Ground	Starter relay control	Output	Ignition switch ON	When selector lever is in P or N position	Battery voltage
					When selector lever is not in P or N position	0 V
61 (W)	Ground	Back door opener request switch	Input	Back door opener request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 JPMIA0016GB 1.0 V
64 (V)	Ground	Intelligent Key warning buzzer (Engine room)	Output	Intelligent Key warning buzzer (Engine room)	Sounding	0 V
					Not sounding	Battery voltage
65 (O)	Ground	Rear wiper stop position	Input	Rear wiper	In stop position	 JPMIA0016GB 1.0 V
					Not in stop position	0 V

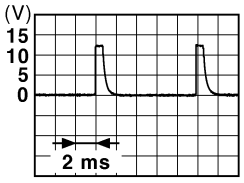
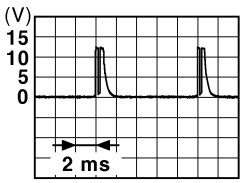
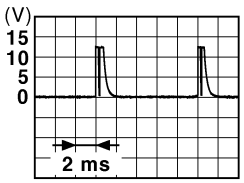
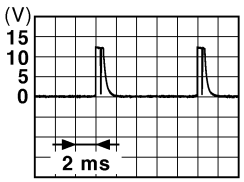
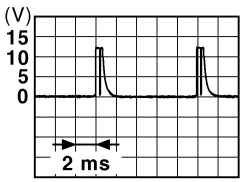
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
66 (R)	Ground	Back door switch	Input	Back door switch	OFF (Door close)	 JPMIA0011GB 11.8 V
					ON (Door open)	0 V
67 (G)	Ground	Back door opener switch	Input	Back door opener switch	Pressed	0 V
					Not pressed	 JPMIA0011GB 11.8 V
68 (BR)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (Door close)	 JPMIA0011GB 11.8 V
					ON (Door open)	0 V
69 (R)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (Door close)	 JPMIA0011GB 11.8 V
					ON (Door open)	0 V

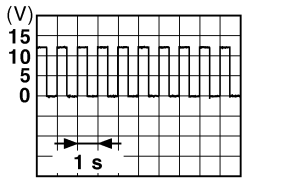
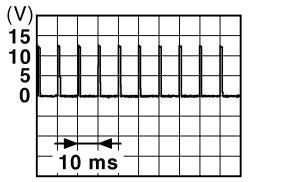
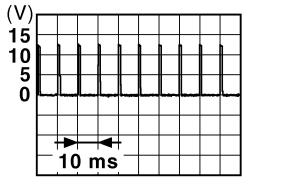
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
72 (R)	Ground	Room antenna 2 (–) (Center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
73 (G)	Ground	Room antenna 2 (+) (Center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
74 (SB)	Ground	Passenger door antenna (–)	Output	When the passenger door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB

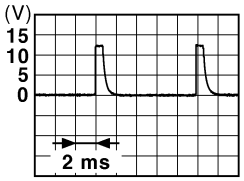
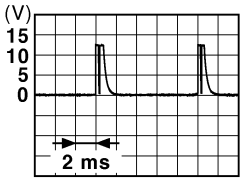
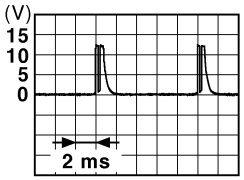
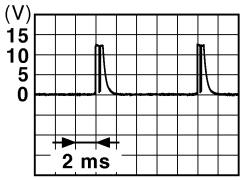
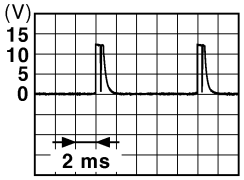
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
75 (GR)	Ground	Passenger door antenna (+)	Output	When the passenger door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
76 (V)	Ground	Driver door antenna (–)	Output	When the driver door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
77 (LG)	Ground	Driver door antenna (+)	Output	When the driver door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB

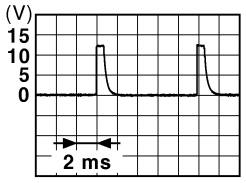
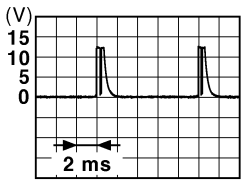
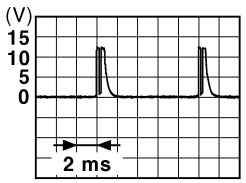
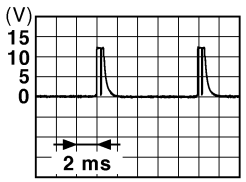
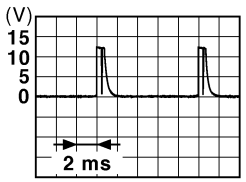
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
78 (Y)	Ground	Room antenna 1 (–) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
79 (BR)	Ground	Room antenna 1 (+) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
80 (GR)	Ground	NATS antenna amp (Built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
81 (W)	Ground	NATS antenna amp (Built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
82 (R)	Ground	Ignition relay [Fuse block (J/B)] control	Output	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage

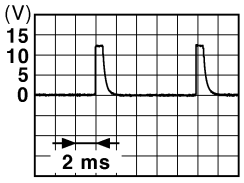
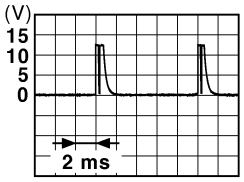
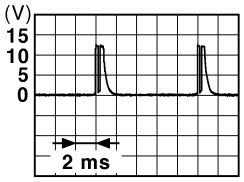
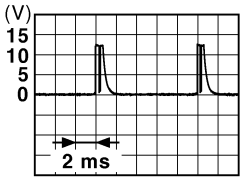
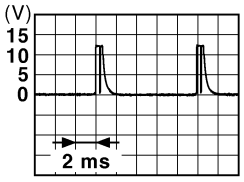
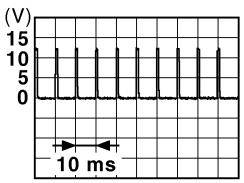
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
83 (Y)	Ground	Remote keyless entry receiver communication	Input/ Output	During waiting		 JMKIA0064GB
				When operating either button on the key		 JMKIA0065GB
87 (BR)	Ground	Combination switch INPUT 5	Input	Combination switch	All switches OFF (Wiper intermittent dial 4)	 JPMIA0041GB 1.4 V
					Front fog lamp switch ON (Wiper intermittent dial 4)	 JPMIA0037GB 1.3 V
					Rear wiper switch ON (Wiper intermittent dial 4)	 JPMIA0039GB 1.3 V
					Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7	 JPMIA0040GB 1.3 V

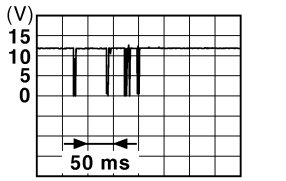
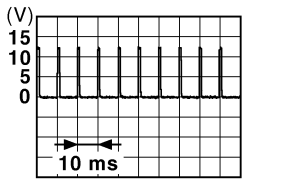
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
88 (V)	Ground	Combination switch INPUT 3	Input	Combination switch	All switches OFF (Wiper intermittent dial 4)	 JPMIA0041GB 1.4 V
					Lighting switch HI (Wiper intermittent dial 4)	 JPMIA0036GB 1.3 V
					Lighting switch 2ND (Wiper intermittent dial 4)	 JPMIA0037GB 1.3 V
					Rear washer switch ON (Wiper intermittent dial 4)	 JPMIA0039GB 1.3 V
					Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3	 JPMIA0040GB 1.3 V
89 (BR)	Ground	Push-button ignition switch (Push switch)	Input	Push-button ignition switch (push switch)	Pressed	0 V
					Not pressed	Battery voltage
90 (P)	Ground	CAN-L	Input/ Output	—		—
91 (L)	Ground	CAN-H	Input/ Output	—		—

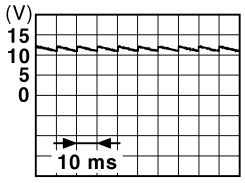
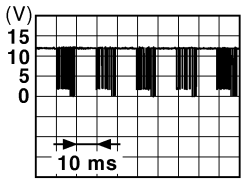
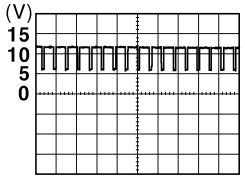
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
92 (LG)	Ground	Key slot illumination	Output	Key slot illumination	OFF	0 V
					Blinking	 JPMIA0015GB 6.5 V
					ON	Battery voltage
93 (V)	Ground	ON indicator lamp	Output	Ignition switch	OFF or ACC	Battery voltage
					ON	0 V
94 (Y)	Ground	Puddle lamp control	Output	Puddle lamp	OFF	Battery voltage
					ON	0 V
95 (O)	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
					ACC or ON	Battery voltage
96 (GR)	Ground	A/T shift selector (Detention switch) power supply	Output	—		Battery voltage
97 (L)	Ground	Steering lock condition No. 1	Input	Steering lock	LOCK status	0 V
					UNLOCK status	Battery voltage
98 (P)	Ground	Steering lock condition No. 2	Input	Steering lock	LOCK status	Battery voltage
					UNLOCK status	0 V
99 (R)	Ground	Selector lever P position switch	Input	Selector lever	P position	0 V
					Any position other than P	Battery voltage
100 (G)	Ground	Passenger door request switch	Input	Passenger door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 JPMIA0016GB 1.0 V
101 (SB)	Ground	Driver door request switch	Input	Driver door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 JPMIA0016GB 1.0 V
102 (O)	Ground	Blower fan motor relay control	Output	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage

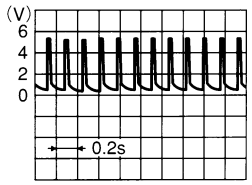
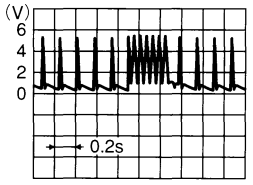
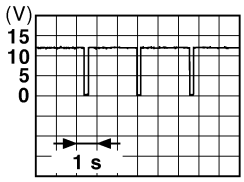
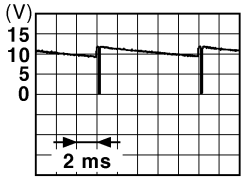
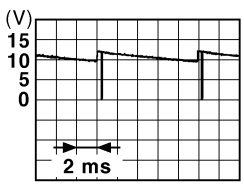
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
103 (LG)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OFF		Battery voltage
106 (W)	Ground	Steering lock unit power supply	Output	Ignition switch	OFF or ACC	Battery voltage
					ON	0 V
107 (LG)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermittent dial 4)	All switches OFF	 JPMIA0041GB 1.4 V
					Turn signal switch LH	 JPMIA0037GB 1.3 V
					Turn signal switch RH	 JPMIA0036GB 1.3 V
					Front wiper switch LO	 JPMIA0038GB 1.3 V
					Front washer switch ON	 JPMIA0039GB 1.3 V

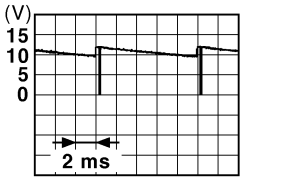
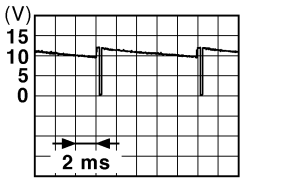
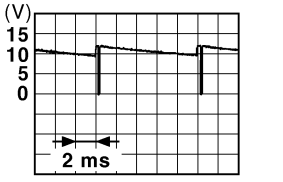
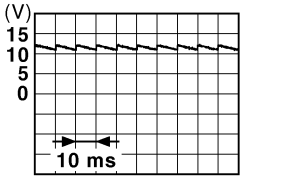
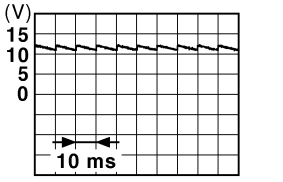
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
108 (R)	Ground	Combination switch INPUT 4	Input	Combination switch	All switches OFF (Wiper intermittent dial 4)	 JPMIA0041GB 1.4 V
					Lighting switch AUTO (Wiper intermittent dial 4)	 JPMIA0038GB 1.3 V
					Lighting switch 1ST (Wiper intermittent dial 4)	 JPMIA0036GB 1.3 V
					Rear wiper switch INT (Wiper intermittent dial 4)	 JPMIA0040GB 1.3 V
					Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	 JPMIA0039GB 1.3 V

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
109 (Y)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermittent dial 4)	All switches OFF	 JPMIA0041GB 1.4 V
					Lighting switch PASS	 JPMIA0037GB 1.3 V
					Lighting switch 2ND	 JPMIA0036GB 1.3 V
					Front wiper switch INT	 JPMIA0038GB 1.3 V
					Front wiper switch HI	 JPMIA0040GB 1.3 V
110 (G)	Ground	Hazard switch	Input	Hazard switch	ON	0 V
					OFF	 JPMIA0012GB 1.1 V

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
111 (Y)	Ground	Steering lock unit communication	Input/ Output	Steering lock	LOCK status	Battery voltage
					LOCK or UNLOCK	 JMKIA0066GB
					For 15 seconds after UNLOCK	Battery voltage
					15 seconds or later after UNLOCK	0 V
113 (P)	Ground	Optical sensor	Input	Ignition switch ON	When bright outside of the vehicle	Close to 5 V
					When dark outside of the vehicle	Close to 0 V
116 (SB)	Ground	Stop lamp switch 1	Input	—		Battery voltage
118 (P)	Ground	Stop lamp switch 2 (Without ICC)	Input	Stop lamp switch	OFF (Brake pedal is not depressed)	0 V
					ON (Brake pedal is depressed)	Battery voltage
		Stop lamp switch 2 (With ICC)		Stop lamp switch OFF (Brake pedal is not depressed) and ICC brake hold relay OFF		0 V
				Stop lamp switch ON (Brake pedal is depressed) or ICC brake hold relay ON		Battery voltage
119 (SB)	Ground	Front door lock assembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	 JPMIA0012GB 1.1 V
					UNLOCK status (Unlock switch sensor ON)	0 V
121 (BR)	Ground	Key slot switch	Input	When the key is inserted into key slot		Battery voltage
				When the key is not inserted into key slot		0 V
123 (W)	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage

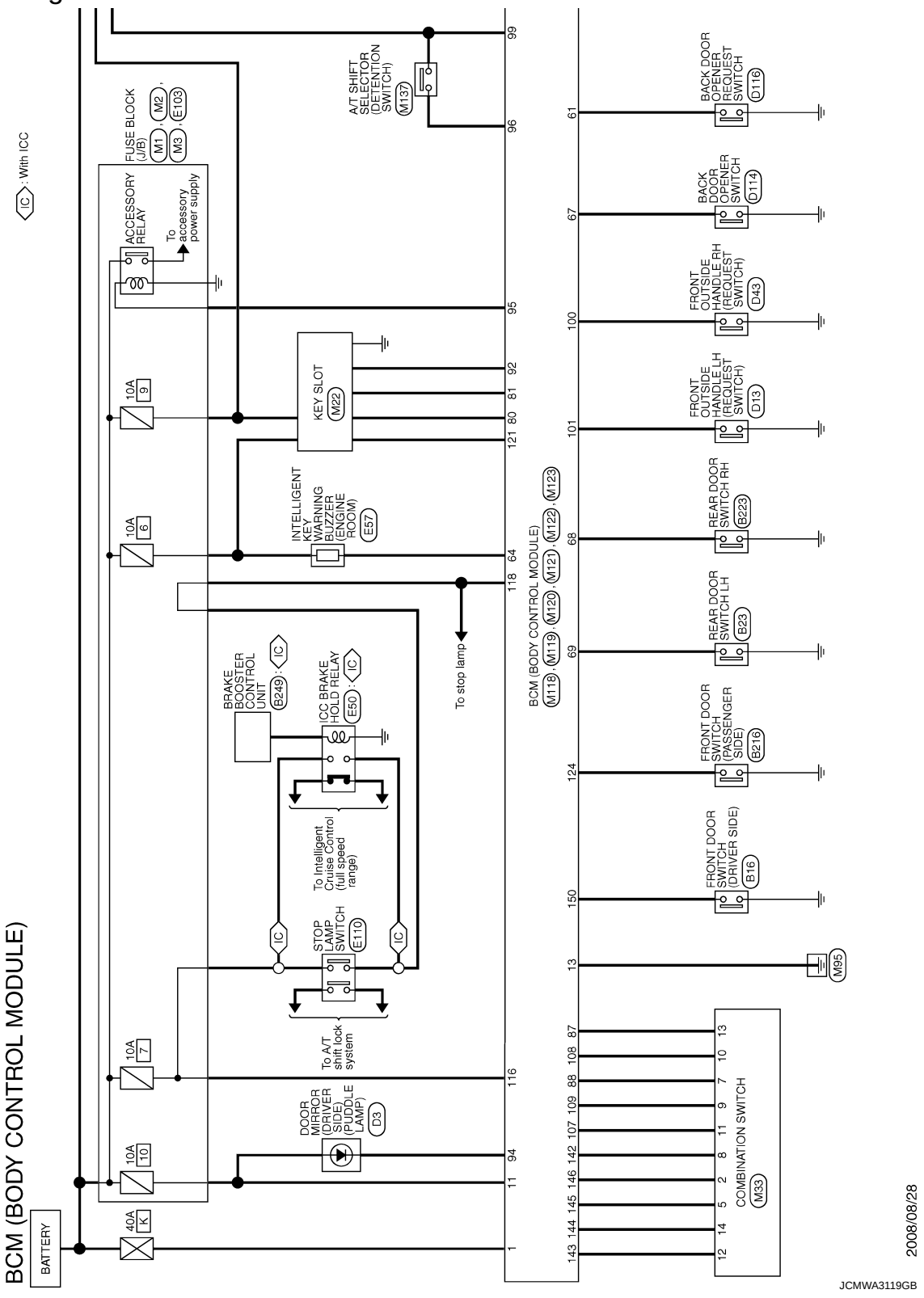
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	 JPMIA0011GB 11.8 V
					ON (Door open)	0 V
132 (V)	Ground	Power window switch communication	Input/ Output	Ignition switch ON		 JPMIA0013GB 10.2 V
				Ignition switch OFF or ACC		Battery voltage
133 (W)	Ground	Push-button ignition switch illumination	Output	Push-button ignition switch illumination	ON (Tail lamps OFF)	9.5 V
					ON (Tail lamps ON)	**NOTE:** The pulse width of this wave is varied by the illumination brightening/dimming level.  JPMIA0159GB
					OFF	0 V
134 (GR)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF	Battery voltage
					ON	0 V
137 (O)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V
138 (Y)	Ground	Receiver and sensor power supply	Output	Ignition switch	OFF	0 V
					ACC or ON	5.0 V

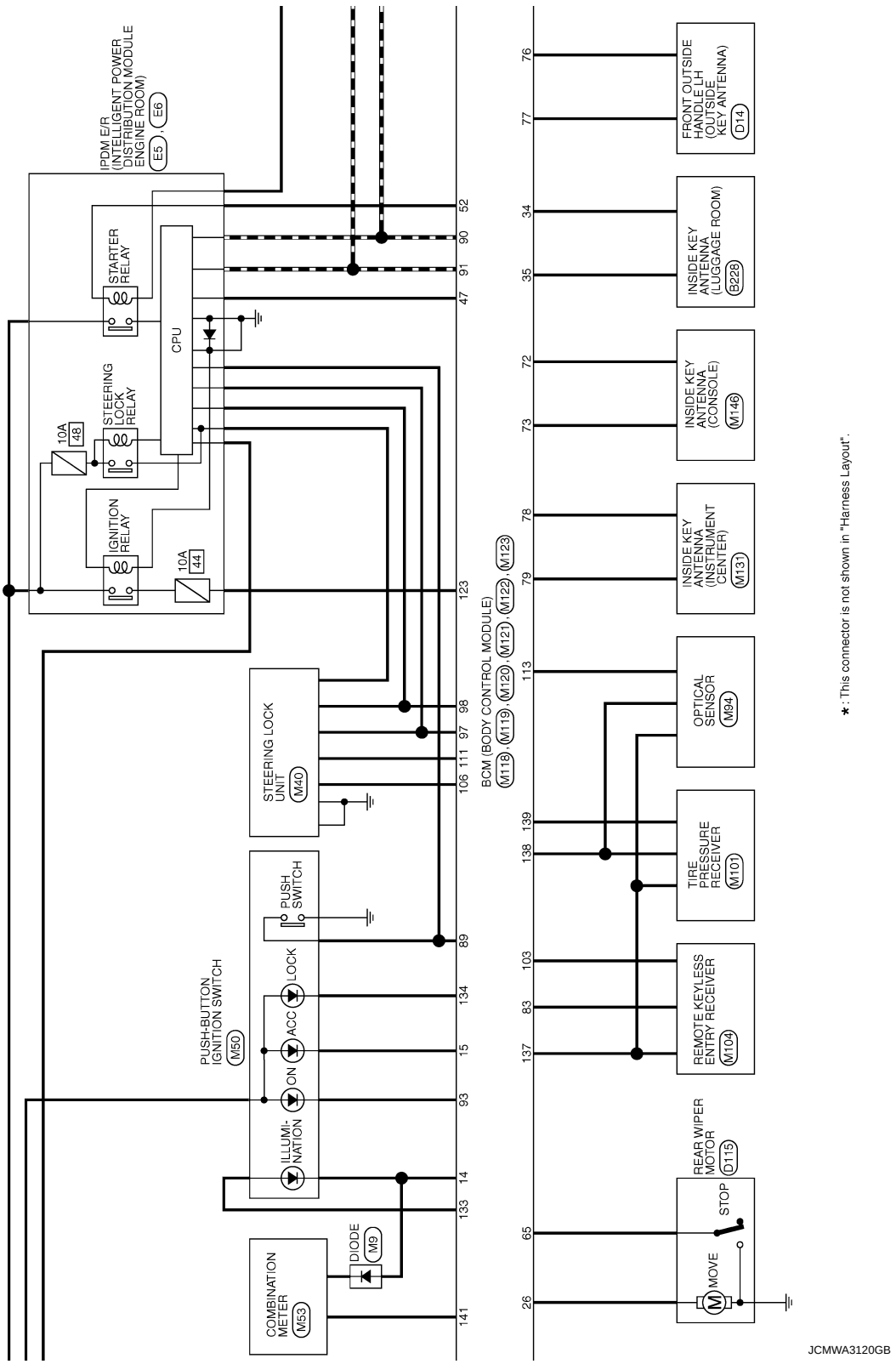
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
139 (L)	Ground	Tire pressure receiver communication	Input/ Output	Ignition switch ON	Standby state	 OCC3881D
					When receiving the signal from the transmitter	 OCC3880D
140 (GR)	Ground	Selector lever P/N position	Input	Selector lever	P or N position	Battery voltage
					Except P and N positions	0 V
141 (G)	Ground	Security indicator	Output	Security indicator	ON	0 V
					Blinking	 JPMIA0014GB 11.3 V
					OFF	Battery voltage
142 (O)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermittent dial 4)	All switches OFF	0 V
					Lighting switch 1ST	 JPMIA0031GB 10.7 V
					Lighting switch HI	
					Lighting switch 2ND	
					Turn signal switch RH	
143 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch	All switches OFF (Wiper intermittent dial 4)	0 V
					Front wiper switch HI (Wiper intermittent dial 4)	 JPMIA0032GB 10.7 V
					Rear wiper switch INT (Wiper intermittent dial 4)	
					Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7	

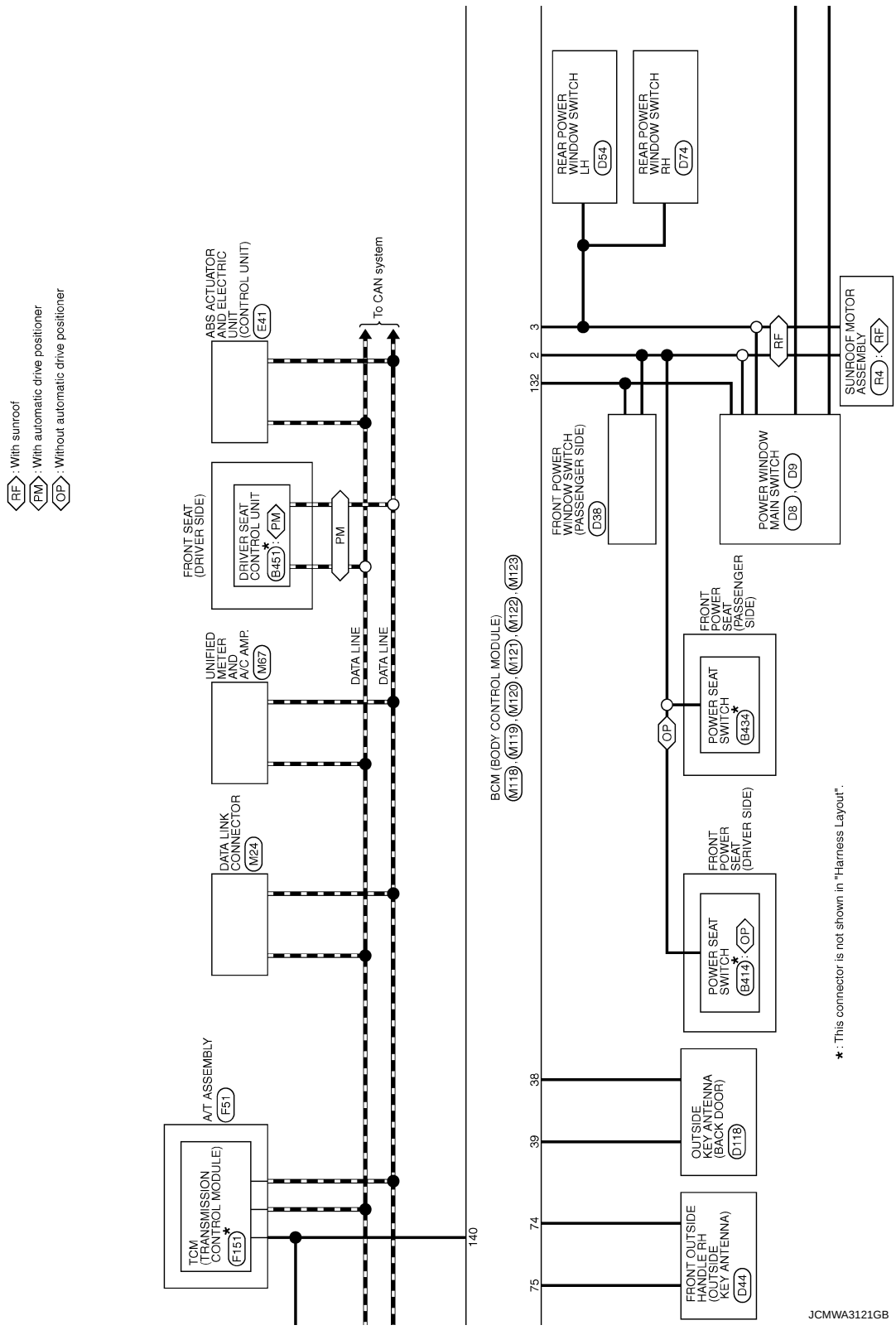
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
144 (G)	Ground	Combination switch OUTPUT 2	Output	Combination switch	All switches OFF (Wiper intermittent dial 4)	0 V
					Front washer switch ON (Wiper intermittent dial 4)	 JPMIA0033GB 10.7 V
					Rear wiper switch ON (Wiper intermittent dial 4)	
					Rear washer switch ON (Wiper intermittent dial 4)	
					Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	
145 (L)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper intermittent dial 4)	All switches OFF	0 V
					Front wiper switch INT	 JPMIA0034GB 10.7 V
					Front wiper switch LO	
					Lighting switch AUTO	
146 (SB)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper intermittent dial 4)	All switches OFF	0 V
					Front fog lamp switch ON	 JPMIA0035GB 10.7 V
					Lighting switch 2ND	
					Lighting switch PASS	
					Turn signal switch LH	
149 (W)	Ground	Tire pressure warning check switch	Input	Ignition switch ON		 JPMIA0011GB 11.8 V
150 (LG)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	 JPMIA0011GB 11.8 V
					ON (Door open)	0 V
151 (G)	Ground	Rear window defogger relay control	Output	Rear window defogger	Active	0 V
					Not activated	Battery voltage

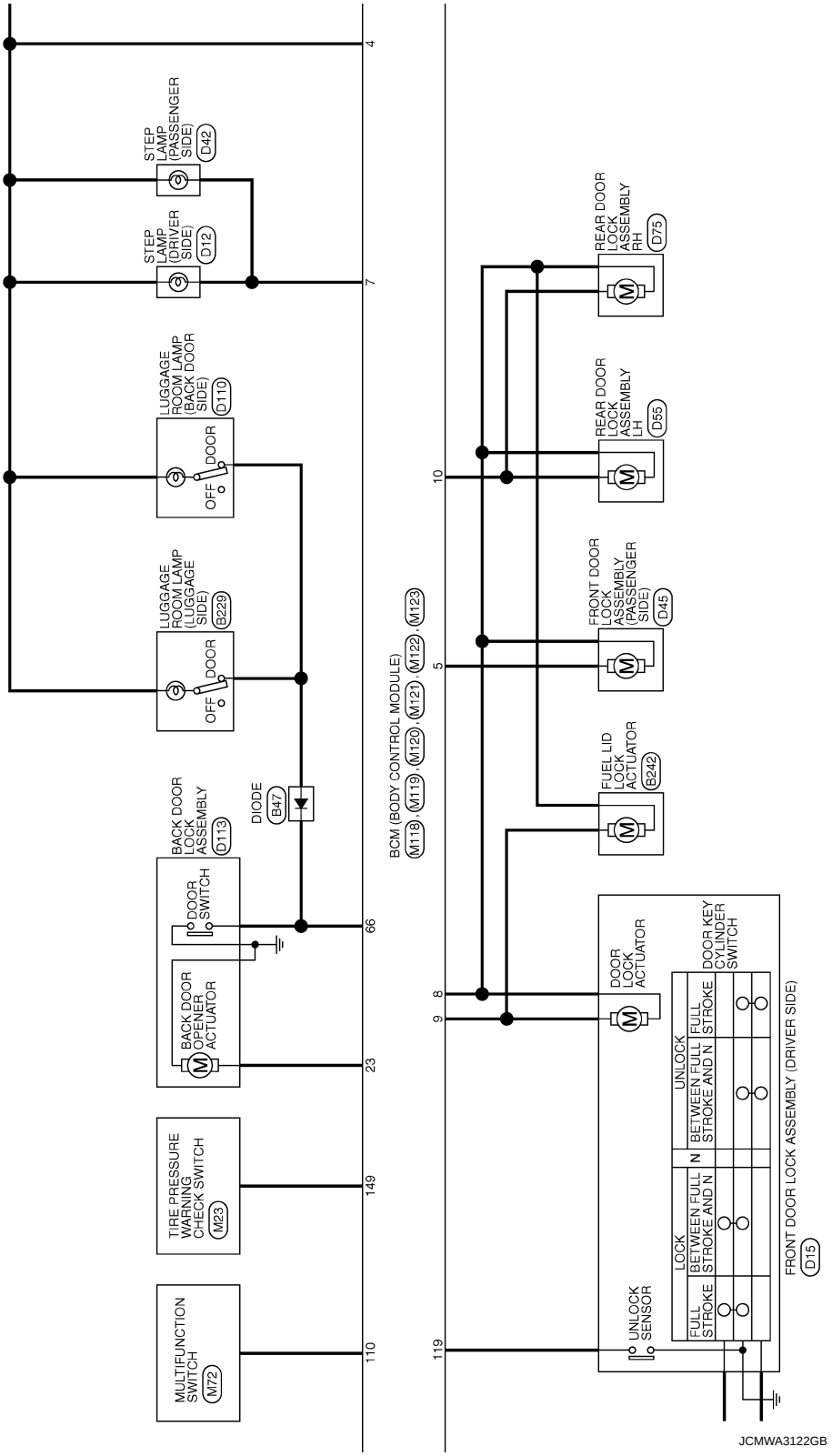
Wiring Diagram - BCM -

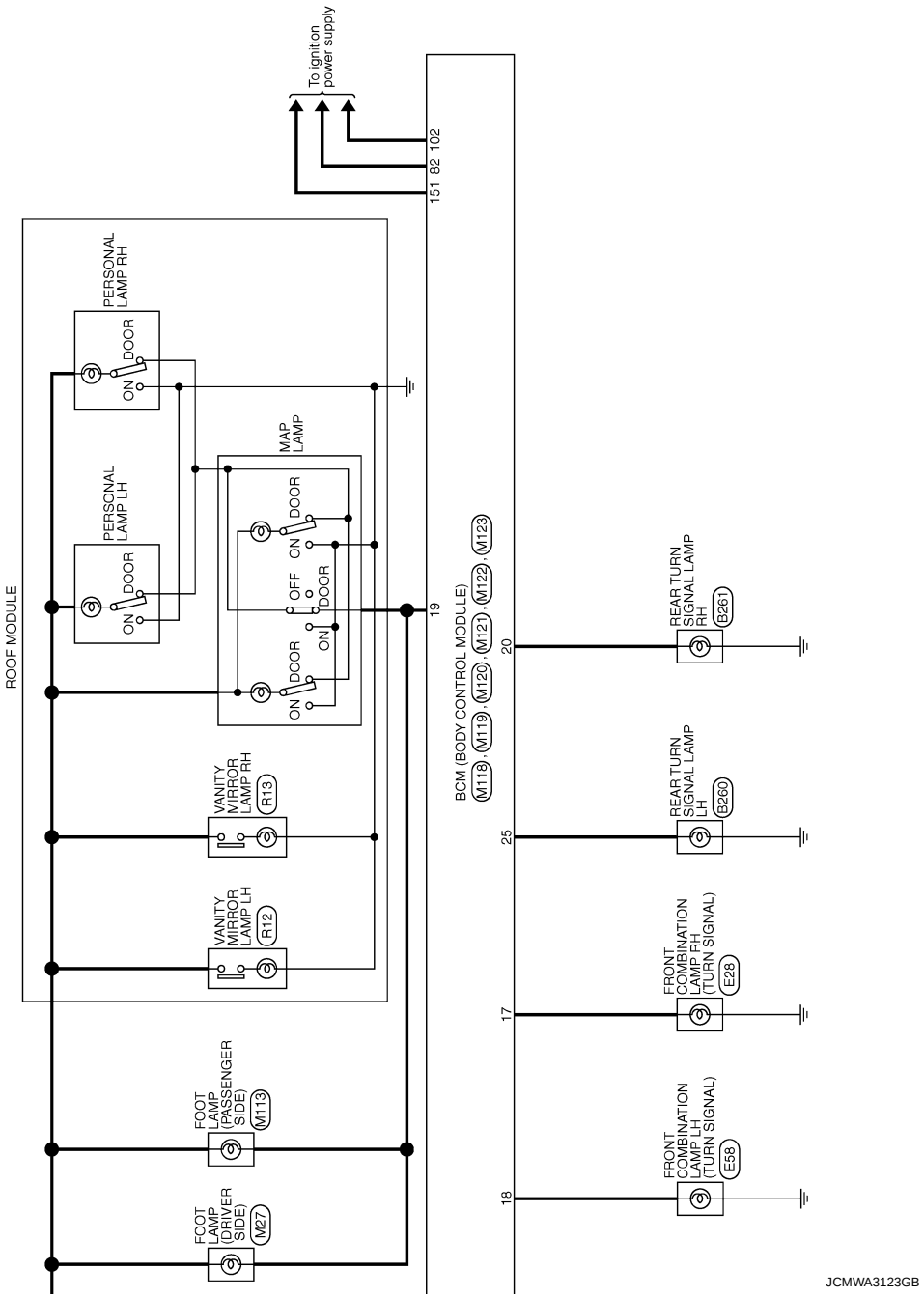
INFOID:0000000004919767




IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) E5, E6
STARTER RELAY
CPU
STEERING LOCK RELAY
10A 48
IGNITION RELAY
10A 44
STEERING LOCK UNIT M40
PUSH SWITCH
PUSH-BUTTON IGNITION SWITCH M50
LOCK
ACC
ON
ILLUMI-NATION
COMBINATION METER M53
DIODE M9
BCM (BODY CONTROL MODULE) M118, M119, M120, M121, M122, M123
FRONT OUTSIDE HANDLE LH (OUTSIDE KEY ANTENNA) D14
INSIDE KEY ANTENNA (LUGGAGE ROOM) B228
INSIDE KEY ANTENNA (CONSOLE) M146
INSIDE KEY ANTENNA (INSTRUMENT CENTER) M131
OPTICAL SENSOR M94
TIRE PRESSURE RECEIVER M101
REMOTE KEYLESS ENTRY RECEIVER M104
REAR WIPER MOTOR D115
STOP
MOVE
52 90 91 47 123 98 97 111 106 89 134 15 93 14 133 141
76 77 34 35 72 73 78 79 113 139 138 103 83 137 65 26
✱: This connector is not shown in "Harness Layout".
JCMWA3120GB


RF : With sunroof
PM : With automatic drive positioner
OP : Without automatic drive positioner
ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) E41
To CAN system
FRONT SEAT (DRIVER SIDE)
DRIVER SEAT CONTROL UNIT B451 : PM
PM
UNIFIED METER AND A/C AMP. M67
DATA LINE
DATA LINE
DATA LINK CONNECTOR M24
A/T ASSEMBLY F51
TCM (TRANSMISSION CONTROL MODULE) F151
140
BCM (BODY CONTROL MODULE) M118, M119, M120, M121, M122, M123
3
2
132
REAR POWER WINDOW SWITCH LH D54
REAR POWER WINDOW SWITCH RH D74
FRONT POWER WINDOW SWITCH (PASSENGER SIDE) D38
POWER WINDOW MAIN SWITCH D8, D9
RF
SUNROOF MOTOR ASSEMBLY R4 : RF
OP
FRONT POWER SEAT (PASSENGER SIDE)
POWER SEAT SWITCH* B434
FRONT POWER SEAT (DRIVER SIDE)
POWER SEAT SWITCH* B414 : OP
38
39
74
75
OUTSIDE KEY ANTENNA (BACK DOOR) D118
FRONT OUTSIDE HANDLE RH (OUTSIDE KEY ANTENNA) D44
* : This connector is not shown in "Harness Layout".
JCMWA3121GB


BCM (BODY CONTROL MODULE)
M118, M119, M120, M121, M122, M123
4
7
66
23
149
110
10
5
8
9
119
STEP LAMP (PASSENGER SIDE) D42
STEP LAMP (DRIVER SIDE) D12
LUGGAGE ROOM LAMP (BACK DOOR SIDE) D110
LUGGAGE ROOM LAMP (LUGGAGE SIDE) B229
DOOR
OFF
DIODE B47
BACK DOOR LOCK ASSEMBLY D113
DOOR SWITCH
BACK DOOR OPENER ACTUATOR
TIRE PRESSURE WARNING CHECK SWITCH M23
MULTIFUNCTION SWITCH M72
REAR DOOR LOCK ASSEMBLY RH D75
REAR DOOR LOCK ASSEMBLY LH D55
FRONT DOOR LOCK ASSEMBLY (PASSENGER SIDE) D45
FUEL LID LOCK ACTUATOR B242
DOOR LOCK ACTUATOR
UNLOCK SENSOR
DOOR KEY CYLINDER SWITCH
LOCK
UNLOCK
FULL STROKE
BETWEEN FULL STROKE AND N
N
FRONT DOOR LOCK ASSEMBLY (DRIVER SIDE) D15
JCMWA3122GB


To ignition power supply
151 82 102
ROOF MODULE
PERSONAL LAMP RH
PERSONAL LAMP LH
MAP LAMP
VANITY MIRROR LAMP RH R13
VANITY MIRROR LAMP LH R12
FOOT LAMP (PASSENGER SIDE) M113
FOOT LAMP (DRIVER SIDE) M27
BCM (BODY CONTROL MODULE)
M118 M119 M120 M121 M122 M123
19
20
25
17
18
REAR TURN SIGNAL LAMP RH B261
REAR TURN SIGNAL LAMP LH B260
FRONT COMBINATION LAMP RH (TURN SIGNAL) E28
FRONT COMBINATION LAMP LH (TURN SIGNAL) E58
JCMWA3123GB

BCM (BODY CONTROL MODULE)

Connector No.	M33
Connector Name	COMBINATION SWITCH
Connector Type	TH16FW-NH

H.S.

1	2	3		4	5	6
7	8	9	10	11	12	13	14

Terminal No.	Color of Wire	Signal Name [Specification]
2	SB	OUTPUT 4
5	L	OUTPUT 3
7	V	INPUT 3
8	O	OUTPUT 5
9	Y	INPUT 2
10	R	INPUT 4
11	LG	INPUT 1
12	P	OUTPUT 1
13	BR	INPUT 5
14	G	OUTPUT 2

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M03FB-LC

H.S.

1	3
2	

Terminal No.	Color of Wire	Signal Name [Specification]
1	W	BAT (F/L)
2	Y	POWER WINDOW POWER SUPPLY(BAT)
3	O	POWER WINDOW POWER SUPPLY(RAP)

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FW-CS

H.S.

4	5	6	7		8	9	10
11	12	13	14	15	16	17	18	19

Terminal No.	Color of Wire	Signal Name [Specification]
4	LG	INTERIOR ROOM LAMP POWER SUPPLY
5	L	PASSENGER DOOR UNLOCK OUTPUT
7	Y	STEP LAMP OUTPUT
8	V	ALL DOOR, FUEL LID LOCK OUTPUT
9	G	DRIVER DOOR, FUEL LID UNLOCK OUTPUT
10	BR	REAR DOOR UNLOCK OUTPUT
11	R	BAT (FUSE)
13	B	GND
14	W	PUSH-BUTTON IGNITION SW ILL GND
15	Y	ACC IND
17	W	TURN SIGNAL RH (FRONT)

18	O	TURN SIGNAL LH (FRONT)
19	V	ROOM LAMP TIMER CONTROL

Connector No.	M120
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS12FW-CS

H.S.

20	21		22	23	24
25	26	27	28	29	30	31

Terminal No.	Color of Wire	Signal Name [Specification]
20	V	TURN SIGNAL RH (REAR)
23	G	BACK DOOR OPEN OUTPUT
25	G	TURN SIGNAL LH (REAR)
26	G	REAR WIPER OUTPUT

Connector No.	M121
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FGY-NH

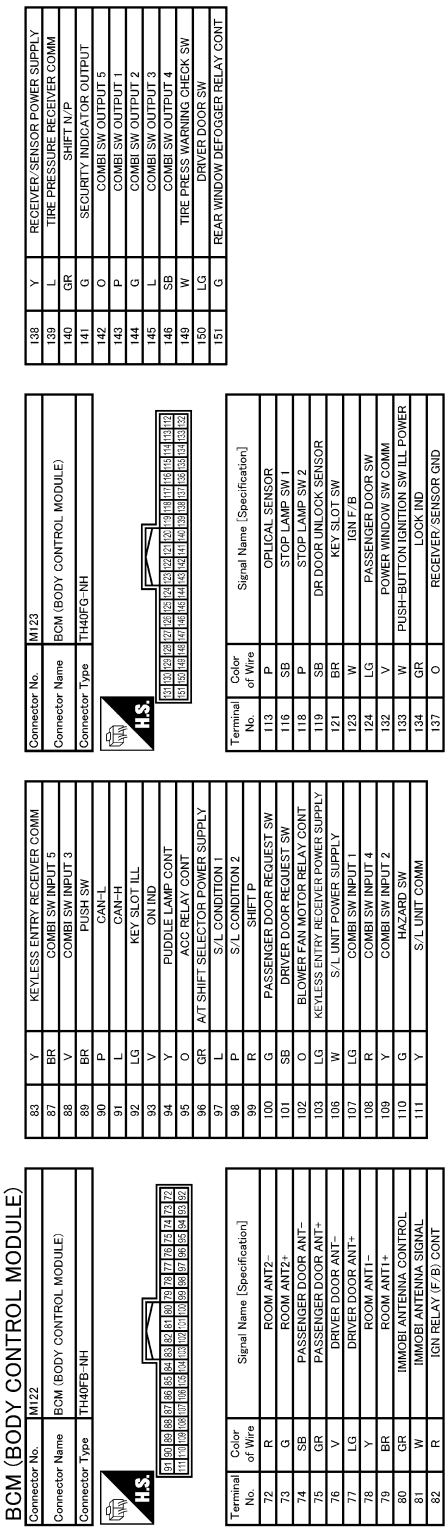
H.S.

51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32
71	70	69	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52

Terminal No.	Color of Wire	Signal Name [Specification]
34	SB	LUGGAGE ROOM ANT-
35	V	LUGGAGE ROOM ANT+
38	B	BACK DOOR ANT-
39	W	BACK DOOR ANT+
47	Y	IGN RELAY (IPDM E/R) CONT
52	SB	STARTER RELAY CONT
61	W	BACK DOOR OPENER REQUEST SW
64	V	I-KEY WARN BUZZER (ENG ROOM)
65	O	REAR WIPER STOP POSITION
66	R	BACK DOOR SW
67	GR	BACK DOOR OPENER SW

68	BR	REAR RH DOOR SW
69	R	REAR LH DOOR SW

JCMWA3124GB



JCMWA3125GB

Fail-safe

INFOID:0000000004919768

FAIL-SAFE CONTROL BY DTC

BCM performs fail-safe control when any DTC are detected.

Display contents of CONSULT	Fail-safe	Cancellation
B2013: ID DISCORD BCM-S/L	Inhibit engine cranking	Erase DTC
B2014: CHAIN OF S/L-BCM	Inhibit engine cranking	Erase DTC
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI SCANNING	Inhibit engine cranking	Ignition switch ON → OFF
B2557: VEHICLE SPEED	Inhibit steering lock	When normal vehicle speed signals are received from ABS actuator and electric unit (control unit) for 500 ms
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent • Starter control relay signal • Starter relay status signal
B2601: SHIFT POSITION	Inhibit steering lock	500 ms after the following signal reception status becomes consistent • Selector lever P position switch signal • P range signal (CAN)
B2602: SHIFT POSITION	Inhibit steering lock	5 seconds after the following BCM recognition conditions are fulfilled • Ignition switch is in the ON position • Selector lever P position switch signal: Except P position (battery voltage) • Vehicle speed: 4 km/h (2.5 MPH) or more
B2603: SHIFT POSI STATUS	Inhibit steering lock	500 ms after the following BCM recognition conditions are fulfilled • Ignition switch is in the ON position • Selector lever P position switch signal: Except P position (battery voltage) • Selector lever P/N position signal: Except P and N positions (0 V)
B2604: PNP SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled • Status 1 - Ignition switch is in the ON position - Selector lever P/N position signal: P and N position (battery voltage) - P range signal or N range signal (CAN): ON • Status 2 - Ignition switch is in the ON position - Selector lever P/N position signal: Except P and N positions (0 V) - P range signal and N range signal (CAN): OFF
B2605: PNP SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled • Ignition switch is in the ON position - Power position: IGN - Selector lever P/N position signal: Except P and N positions (0 V) - Interlock/PNP switch signal (CAN): OFF • Status 2 - Ignition switch is in the ON position - Selector lever P/N position signal: P or N position (battery voltage) - PNP switch signal (CAN): ON
B2606: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent • Steering lock relay signal (Request signal) • Steering lock relay signal (Condition signal)

Display contents of CONSULT	Fail-safe	Cancellation
B2607: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent • Steering lock relay signal (Request signal) • Steering lock relay signal (Condition signal)
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent • Starter motor relay control signal • Starter relay status signal (CAN)
B2609: S/L STATUS	• Inhibit engine cranking • Inhibit steering lock	When the following steering lock conditions agree • BCM steering lock control status • Steering lock condition No. 1 signal status • Steering lock condition No. 2 signal status
B260A: IGNITION RELAY	Inhibit engine cranking	500 ms after the following conditions are fulfilled • IGN relay (IPDM E/R) control signal: OFF (Battery voltage) • Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) • Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions are fulfilled • Power position changes to ACC • Receives engine status signal (CAN)
B2612: S/L STATUS	• Inhibit engine cranking • Inhibit steering lock	When any of the following conditions are fulfilled • Steering lock unit status signal (CAN) is received normally • The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R)
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal
B2619: BCM	Inhibit engine cranking	1 second after the steering lock unit power supply output control inside BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E9: S/L STATUS	• Inhibit engine cranking • Inhibit steering lock	When BCM transmits the LOCK request signal to steering lock unit, and receives LOCK response signal from steering lock unit, the following conditions are fulfilled • Steering condition No. 1 signal: LOCK (0 V) • Steering condition No. 2 signal: LOCK (Battery voltage)

HIGH FLASHER OPERATION

BCM detects the turn signal lamp circuit status by the current value.
BCM increases the turn signal lamp blinking speed if the bulb or harness open is detected with the turn signal lamp operating.

NOTE:
The blinking speed is normal while activating the hazard warning lamp.

REAR WIPER MOTOR PROTECTION

BCM detects the rear wiper stopping position according to the rear wiper stop position signal.
When the rear wiper stop position signal does not change for more than 5 seconds while driving the rear wiper, BCM stops power supply to protect the rear wiper motor.

Condition of cancellation
1. More than 1 minute is passed after the rear wiper stops.
2. Turn rear wiper switch OFF.
3. Operate the rear wiper switch or rear washer switch.

DTC Inspection Priority Chart

INFOID:0000000004919769

If some DTCs are displayed at the same time, perform inspections one by one based on the following priority chart.

Priority	DTC
1	B2562: LOW VOLTAGE
2	• U1000: CAN COMM CIRCUIT • U1010: CONTROL UNIT (CAN)
3	• B2190: NATS ANTENNA AMP • B2191: DIFFERENCE OF KEY • B2192: ID DISCORD BCM-ECM • B2193: CHAIN OF BCM-ECM • B2195: ANTI SCANNING
4	• B2013: ID DISCORD BCM-S/L • B2014: CHAIN OF S/L-BCM • B2553: IGNITION RELAY • B2555: STOP LAMP • B2556: PUSH-BTN IGN SW • B2557: VEHICLE SPEED • B2560: STARTER CONT RELAY • B2601: SHIFT POSITION • B2602: SHIFT POSITION • B2603: SHIFT POSI STATUS • B2604: PNP SW • B2605: PNP SW • B2606: S/L RELAY • B2607: S/L RELAY • B2608: STARTER RELAY • B2609: S/L STATUS • B260A: IGNITION RELAY • B260B: STEERING LOCK UNIT • B260C: STEERING LOCK UNIT • B260D: STEERING LOCK UNIT • B260F: ENG STATE SIG LOST • B2612: S/L STATUS • B2614: ACC RELAY CIRC • B2615: BLOWER RELAY CIRC • B2616: IGN RELAY CIRC • B2617: STARTER RELAY CIRC • B2618: BCM • B2619: BCM • B261A: PUSH-BTN IGN SW • B261E: VEHICLE TYPE • B26E9: S/L STATUS • B26EA: KEY REGISTRATION • C1729: VHCL SPEED SIG ERR • U0415: VEHICLE SPEED SIG

Priority	DTC
5	• C1704: LOW PRESSURE FL • C1705: LOW PRESSURE FR • C1706: LOW PRESSURE RR • C1707: LOW PRESSURE RL • C1708: [NO DATA] FL • C1709: [NO DATA] FR • C1710: [NO DATA] RR • C1711: [NO DATA] RL • C1712: [CHECKSUM ERR] FL • C1713: [CHECKSUM ERR] FR • C1714: [CHECKSUM ERR] RR • C1715: [CHECKSUM ERR] RL • C1716: [PRESSDATA ERR] FL • C1717: [PRESSDATA ERR] FR • C1718: [PRESSDATA ERR] RR • C1719: [PRESSDATA ERR] RL • C1720: [CODE ERR] FL • C1721: [CODE ERR] FR • C1722: [CODE ERR] RR • C1723: [CODE ERR] RL • C1724: [BATT VOLT LOW] FL • C1725: [BATT VOLT LOW] FR • C1726: [BATT VOLT LOW] RR • C1727: [BATT VOLT LOW] RL • C1734: CONTROL UNIT
6	• B2621: INSIDE ANTENNA • B2622: INSIDE ANTENNA • B2623: INSIDE ANTENNA

DTC Index

INFOID:0000000004919770

NOTE:
The details of time display are as follows.
- CRNT: A malfunction is detected now.
- PAST: A malfunction was detected in the past.

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to BCS-16, "COMMON ITEM : CONSULT-III Function (BCM - COMMON ITEM)".

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
No DTC is detected. further testing may be required.	—	—	—	—	—
U1000: CAN COMM CIRCUIT	—	—	—	—	BCS-37
U1010: CONTROL UNIT (CAN)	—	—	—	—	BCS-38
U0415: VEHICLE SPEED SIG	—	—	—	—	BCS-39
B2013: ID DISCORD BCM-S/L	×	×	—	—	SEC-48
B2014: CHAIN OF S/L-BCM	×	×	—	—	SEC-49
B2190: NATS ANTENNA AMP	×	—	—	—	SEC-41
B2191: DIFFERENCE OF KEY	×	—	—	—	SEC-44
B2192: ID DISCORD BCM-ECM	×	—	—	—	SEC-45
B2193: CHAIN OF BCM-ECM	×	—	—	—	SEC-46
B2195: ANTI SCANNING	×	—	—	—	SEC-47
B2553: IGNITION RELAY	—	×	—	—	PCS-49

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
B2555: STOP LAMP	—	×	—	—	SEC-52
B2556: PUSH-BTN IGN SW	—	×	×	—	SEC-54
B2557: VEHICLE SPEED	×	×	×	—	SEC-56
B2560: STARTER CONT RELAY	×	×	×	—	SEC-57
B2562: LOW VOLTAGE	—	×	—	—	BCS-40
B2601: SHIFT POSITION	×	×	×	—	SEC-58
B2602: SHIFT POSITION	×	×	×	—	SEC-61
B2603: SHIFT POSI STATUS	×	×	×	—	SEC-63
B2604: PNP SW	×	×	×	—	SEC-66
B2605: PNP SW	×	×	×	—	SEC-68
B2606: S/L RELAY	×	×	×	—	SEC-70
B2607: S/L RELAY	×	×	×	—	SEC-71
B2608: STARTER RELAY	×	×	×	—	SEC-73
B2609: S/L STATUS	×	×	×	—	SEC-75
B260A: IGNITION RELAY	×	×	×	—	PCS-51
B260B: STEERING LOCK UNIT	—	×	×	—	SEC-79
B260C: STEERING LOCK UNIT	—	×	×	—	SEC-80
B260D: STEERING LOCK UNIT	—	×	×	—	SEC-81
B260F: ENG STATE SIG LOST	×	×	×	—	SEC-82
B2612: S/L STATUS	×	×	×	—	SEC-86
B2614: ACC RELAY CIRC	—	×	×	—	PCS-53
B2615: BLOWER RELAY CIRC	—	×	×	—	PCS-56
B2616: IGN RELAY CIRC	—	×	×	—	PCS-59
B2617: STARTER RELAY CIRC	×	×	×	—	SEC-90
B2618: BCM	×	×	×	—	PCS-62
B2619: BCM	×	×	×	—	SEC-92
B261A: PUSH-BTN IGN SW	—	×	×	—	SEC-93
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	—	SEC-96
B2621: INSIDE ANTENNA	—	×	—	—	DLK-59
B2622: INSIDE ANTENNA	—	×	—	—	DLK-61
B2623: INSIDE ANTENNA	—	×	—	—	DLK-63
B26E1: ENG STATE NO RES	×	×	×	—	SEC-83
B26E9: S/L STATUS	×	×	× (Turn ON for 15 seconds)	—	SEC-84
B26EA: KEY REGISTRATION	—	×	× (Turn ON for 15 seconds)	—	SEC-85
C1704: LOW PRESSURE FL	—	—	—	×	WT-17
C1705: LOW PRESSURE FR	—	—	—	×	
C1706: LOW PRESSURE RR	—	—	—	×	
C1707: LOW PRESSURE RL	—	—	—	×	

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
C1708: [NO DATA] FL	—	—	—	×	WT-19
C1709: [NO DATA] FR	—	—	—	×	
C1710: [NO DATA] RR	—	—	—	×	
C1711: [NO DATA] RL	—	—	—	×	
C1712: [CHECKSUM ERR] FL	—	—	—	×	WT-22
C1713: [CHECKSUM ERR] FR	—	—	—	×	
C1714: [CHECKSUM ERR] RR	—	—	—	×	
C1715: [CHECKSUM ERR] RL	—	—	—	×	
C1716: [PRESSDATA ERR] FL	—	—	—	×	WT-25
C1717: [PRESSDATA ERR] FR	—	—	—	×	
C1718: [PRESSDATA ERR] RR	—	—	—	×	
C1719: [PRESSDATA ERR] RL	—	—	—	×	
C1720: [CODE ERR] FL	—	—	—	×	WT-27
C1721: [CODE ERR] FR	—	—	—	×	
C1722: [CODE ERR] RR	—	—	—	×	
C1723: [CODE ERR] RL	—	—	—	×	
C1724: [BATT VOLT LOW] FL	—	—	—	×	WT-30
C1725: [BATT VOLT LOW] FR	—	—	—	×	
C1726: [BATT VOLT LOW] RR	—	—	—	×	
C1727: [BATT VOLT LOW] RL	—	—	—	×	
C1729: VHCL SPEED SIG ERR	—	—	—	×	WT-33
C1734: CONTROL UNIT	—	—	—	×	WT-34

SYMPTOM DIAGNOSIS

TPMS

Symptom Table

INFOID:0000000004346993

LOW TIRE PRESSURE WARNING LAMP SYMPTOM CHART

Diagnosis Item	Symptom (Ignition switch ON)	Low tire pressure warning lamp	Cause	Action
Low tire pressure warning lamp	Low tire pressure warning lamp comes on immediately and turns off after 1 second.	 ON 1 sec > stays OFF SEIA0592E	All wheel transmitters are “activated” (working).	None (system OK)
	Low tire pressure warning lamp blinks on for 2 seconds, then turns off for 0.2 seconds-repeats.	 Blinks: ON 2 sec > OFF 0.2 sec SEIA0593E	All wheel transmitters are not activated.	Activate all wheel tire pressure transmitters. Refer to WT-6, "TRANSMITTER WAKE UP OPERATION : Special Repair Requirement".
	Low tire pressure warning lamp blinks 1 time.	 Blinks 1 time ON 0.3 sec > OFF 1.3 sec SEIA0594E	Tire pressure transmitter front LH is not activated.	Activate tire pressure transmitter front LH. Refer to WT-6, "TRANSMITTER WAKE UP OPERATION : Special Repair Requirement".
	Low tire pressure warning lamp blinks 2 times.	 Blinks 2 times ON 0.3 sec > OFF 0.3 sec SEIA0595E	Tire pressure transmitter front RH is not activated.	Activate tire pressure transmitter front RH. Refer to WT-6, "TRANSMITTER WAKE UP OPERATION : Special Repair Requirement".
	Low tire pressure warning lamp blinks 3 times.	 Blinks 3 times ON 0.3 sec > OFF 0.3 sec SEIA0596E	Tire pressure transmitter rear RH is not activated.	Activate tire pressure transmitter rear RH. Refer to WT-6, "TRANSMITTER WAKE UP OPERATION : Special Repair Requirement".

Diagnosis Item	Symptom (Ignition switch ON)	Low tire pressure warning lamp	Cause	Action
Low tire pressure warning lamp	Low tire pressure warning lamp blinks 4 times.	 Blinks 4 times ON 0.3 sec > OFF 0.3 sec SEIA0597E	Tire pressure transmitter rear LH is not activated.	Activate tire pressure transmitter rear LH. Refer to WT-6, "TRANSMITTER WAKE UP OPERATION : Special Repair Requirement".
	Low tire pressure warning lamp comes on and does not turn off.	 Comes ON and stays ON SEIA0598E	Tire pressure is low.	Check tire pressure with CONSULT-III. Refer to WT-15, "AIR PRESSURE MONITOR : CONSULT-III Function (BCM - AIR PRESSURE MONITOR)".
	Low tire pressure warning lamp blinks on for 0.5 seconds then turns off for 0.5 seconds-repeats for 1 minute, and then stays on.	 Blinks 1 min ON 0.5 sec > OFF 0.5 sec and stays ON SEIA0788E	The fuse for combination meter from battery is pulled out.	Check the fuse for combination meter from battery. Install or replace (if needed).
			BCM connector pulled out.	Check BCM connector. Reconnect if needed.
			Low tire pressure or tire pressure monitoring system malfunction.	• Perform CONSULT-III Self-Diagnosis. Refer to WT-15, "AIR PRESSURE MONITOR : CONSULT-III Function (BCM - AIR PRESSURE MONITOR)". - Perform ID Registration if needed. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".
Turn signal lamp	Turn signal lamp does not blink 2 times or buzzer does not sound after transmitter activation.	—	1. Tool J-45295 [SST] does not activated. 2. Ignition OFF during activation. 3. Tool J-45295 [SST] not positioned correctly. 4. Transmitters already activated.	1. Install new battery. 2. Check ignition is ON during activation. 3. Position tool correctly during activation. 4. Nothing.

NOTE:

If more than one wheel transmitter is NOT activated, the low tire pressure warning lamp blinking patterns for those wheels will combine. (Example: one blink/OFF/three blinks = Tire pressure transmitter rear LH and rear RH are not activated.)

LOW TIRE PRESSURE WARNING LAMP DOES NOT TURN ON

Description

INFOID:0000000004346994

DESCRIPTION

The low tire pressure warning lamp illuminates for approximately 1 second and then turns OFF when the ignition switch is turned ON. This is to check that no abnormal condition is present in the tire pressure monitoring system.
The lamp bulb may be burnt out or the tire pressure monitoring system may be malfunctioning if the low tire pressure warning lamp does not illuminate when the ignition switch is turned ON.

Diagnosis Procedure

INFOID:0000000004346995

1.CHECK SELF-DIAGNOSIS RESULTS

With CONSULT-III
1. On the “SELECT DIAG” mode, select the “SELF-DIAG RESULTS” screen.
2. Check display contents in self-diagnostic results.

Is “CAN COMM CIRCUIT” displayed in the self-diagnosis display items?

YES >> Perform trouble diagnosis for CAN communication system. Refer to LAN-17, "Trouble Diagnosis Flow Chart".
NO >> GO TO 2.

2.CHECK COMBINATION METER

Check combination meter function. Refer to MWI-40, "CONSULT-III Function (METER/M&A)".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace damaged parts.

3.CHECK LOW TIRE PRESSURE WARNING LAMP

1. Turn the ignition switch OFF.
2. Disconnect BCM harness connectors.
3. Turn the ignition switch ON.

CAUTION:
Never start the engine.

Does low tire pressure warning lamp turn ON?

YES >> GO TO 4.
NO >> Check combination meter and repair or replace. Refer to MWI-38, "Diagnosis Description".

4.CHECK SYMPTOM

Check symptom again.

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 5.

5.CHECK BCM

Check BCM input/output signal. Refer to WT-49, "Reference Value".

Is the inspection result normal?

YES >> GO TO 4.
NO >> GO TO 6.

6.CHECK BCM HARNESS CONNECTOR

Check BCM pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-85, "Removal and Installation".
NO >> Repair or replace damaged parts.

LOW TIRE PRESSURE WARNING LAMP DOES NOT TURN OFF

Description

INFOID:0000000004346996

DESCRIPTION

The tire pressure monitoring system is checked and the warning lamp is illuminated for approximately 1 second when the ignition switch is turned ON. The low tire pressure warning lamp turns OFF after the system check finishes.
The system may be malfunctioning if the low tire pressure warning lamp does not turn off approximately 1 second after the ignition switch is turned ON.

Diagnosis Procedure

INFOID:0000000004346997

1.CHECK SYSTEM FOR BCM

With CONSULT-III
1. On “SELF-DIAG” mode, select the “SELF-DIAG RESULTS” screen.
2. Check display contents in self-diagnostic results.

Does self-diagnostic results indicate any malfunction?

YES >> Perform trouble diagnosis. Refer to WT-15, "AIR PRESSURE MONITOR : CONSULT-III Function (BCM - AIR PRESSURE MONITOR)".
NO >> GO TO 2.

2.CHECK ID REGISTRATION

Perform ID registration of all transmitters. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

Does low tire pressure warning lamp turn OFF?

YES >> INSPECTION END
NO >> GO TO 3.

3.CHECK BCM POWER SUPPLY CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect BCM harness connector.
3. Check voltage between BCM harness connector and ground.

BCM		—	Voltage (Approx.)
Connector	Terminal		
M118	1	Ground	Battery voltage
M119	11		

Is the inspection result normal?

YES >> GO TO 4.
NO >> Check the following. If any items are damaged, repair or replace damaged parts.
- 40 A fusible link [No. K located in the fuse block]. Refer to PG-100, "Fuse and Fusible Link Arrangement".
- 10 A fuse [No. 10 located in the fuse block (J/B)]. Refer to PG-99, "Fuse, Connector and Terminal Arrangement".
- Harness for short or open between battery and BCM harness connector M118 terminal 1.
- Harness for short or open between battery and BCM harness connector M119 terminal 11.
- Check battery voltage.

4.CHECK BCM GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		—	Continuity
Connector	Terminal		
M119	13	Ground	Existed

Is the inspection result normal?

YES >> GO TO 5.
NO >> Repair or replace damaged parts.

5. CHECK SYMPTOM

Check symptom again.

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 6.

6. CHECK BCM

Check BCM input/output signal. Refer to WT-49, "Reference Value".

Is the inspection result normal?

YES >> GO TO 5.
NO >> GO TO 7.

7. CHECK BCM HARNESS CONNECTOR

Check BCM pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-85, "Removal and Installation".
NO >> Repair or replace damaged parts.

LOW TIRE PRESSURE WARNING LAMP BLINKS

Description

INFOID:0000000004346998

DESCRIPTION

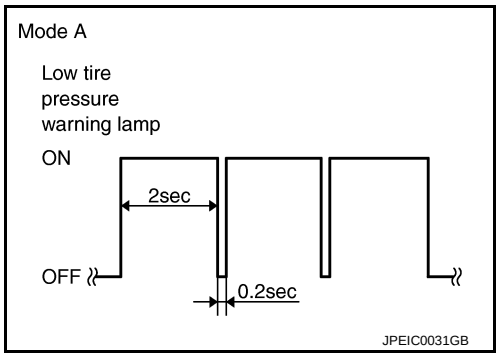
The low tire pressure warning lamp illuminates or blinks.
However, a check is necessary because the symptom may not be caused by a system malfunction. For example, the transmitter may not be initialized.

NOTE:

If low tire pressure warning lamp blinks as shown in the figure, the system is normal.

Blink Mode A

- This mode shows transmitter status is in OFF- mode.
  Perform transmitter wake up operation. Refer to WT-6, "TRANSMITTER WAKE UP OPERATION : Special Repair Requirement".



Diagnosis Procedure

INFOID:0000000004346999

1. CHECK TIRE PRESSURE WARNING CHECK SWITCH POWER SUPPLY

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Check voltage between tire pressure warning check switch connector and ground.

Tire pressure warning check switch		—	Voltage (Approx.)
Connector	Terminal		
M23	1	Ground	11.8 V

Is the inspection result normal?

YES >> GO TO 2.
NO >> Riper or replace damaged parts.

2. CHECK TIRE PRESSURE WARNING CHECK SWITCH CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect BCM harness connector.
3. Check continuity between BCM harness connector and tire pressure warning check switch connector.

BCM		Tire pressure warning check switch		Continuity
Connector	Terminal	Connector	Terminal	
M123	149	M23	1	Existed

4. Check continuity between BCM harness connector and ground.

BCM		—	Continuity
Connector	Terminal		
M123	149	Ground	Not existed

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace damaged parts.

3.CHECK BCM

Check BCM input/output signal. Refer to WT-49, "Reference Value".

Is the inspection result normal?

YES >> Check tire pressure warning check switch. Refer to WT-40, "Diagnosis Procedure".
NO >> Repair or replace the BCM.

TURN SIGNAL LAMP BLINKS

Description

INFOID:0000000004347000

DESCRIPTION

The turn signal lamp blinks when the ignition switch is turned ON.
The BCM connector or circuit may have a malfunction.

Diagnosis Procedure

INFOID:0000000004347001

1.CHECK TIRE PRESSURE WARNING CHECK SWITCH POWER SUPPLY CIRCUIT

1. Turn the ignition switch ON.
   CAUTION:
   Never start the engine.
2. Check voltage between tire pressure warning check switch connector and ground.

Tire pressure warning check switch		—	Voltage (Approx.)
Connector	Terminal		
M23	1	Ground	11.8 V

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace damaged parts.

2.CHECK TIRE PRESSURE WARNING CHECK SWITCH CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect BCM harness connector.
3. Check continuity between BCM harness connector and tire pressure warning check switch connector.

BCM		Tire pressure warning check switch		Continuity
Connector	Terminal	Connector	Terminal	Existed
M123	149	M23	1	

4. Check continuity between BCM harness connector and ground.

BCM		—	Continuity
Connector	Terminal		
M123	149	Ground	Not existed

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace damaged parts.

3.CHECK SYMPTOM

Check again.

Does the turn signal lamp remain blinking?

YES >> Check turn signal lamp operation. Refer to EXL-35, "FLASHER : CONSULT-III Function (BCM - FLASHER)".
NO >> INSPECTION END

ID REGISTRATION CANNOT BE COMPLETED

Description

INFOID:0000000004347002

DESCRIPTION

The ID of the transmitter installed in each wheel cannot be registered in the tire pressure monitoring system. Inspect the transmitter or the tire pressure monitoring system circuit.

Diagnosis Procedure

INFOID:0000000004347003

1.CHECK ID REGISTRATION

1. Perform ID registration of all transmitters. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".
2. Drive at a speed of 40 km/h (25 MPH) or more for 3 minutes, and then drive the vehicle at any speed for 10 minutes.
3. Check all tire pressures with CONSULT-III “DATA MONITOR” within 5 minutes.

Monitored item	Condition	Display value
AIR PRESS FL	Start the engine and drive at 40 km/h (25 MPH) or more for several minutes.	Approximately equal to the indication on vehicle information display.
AIR PRESS FR		
AIR PRESS RR		
AIR PRESS RL		

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 2.

2.CHECK TRANSMITTER

1. Perform trouble diagnosis for transmitters. Refer to WT-19, "Diagnosis Procedure".
2. Perform ID registration of all transmitters. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

Can ID registration of all transmitters be completed?

YES >> INSPECTION END
NO >> Replace the transmitter.

NORMAL OPERATING CONDITION

Description

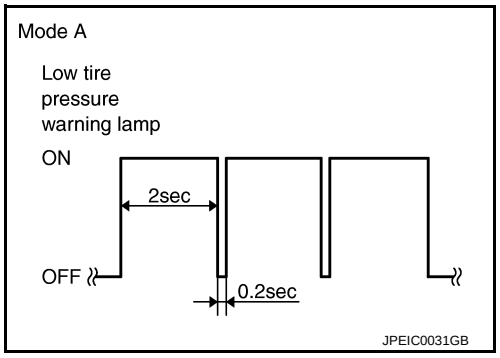
INFOID:0000000004347004

LOW TIRE PRESSURE WARNING LAMP BLINKS

The tire pressure monitoring system is not malfunctioning if the low tire pressure warning lamp blinks in the pattern as shown in the figure.

The incident occurs because the transmitter of each wheel is not wake up.

Perform transmitter wake up operation. Refer to WT-6, "TRANSMITTER WAKE UP OPERATION : Special Repair Requirement".



NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

NVH Troubleshooting Chart

INFOID:0000000004347005

Use chart below to find the cause of the symptom. If necessary, repair or replace these parts.

Reference page			2WD models: FSU-9, FSU-7 AWD models: FSU-28, FSU-26	WT-99, "Inspection"	WT-100, "Adjustment"	WT-106, "Tire Air Pressure"	WT-100, "Adjustment"	—	—	WT-106, "Tire Air Pressure"	NVH in DLN section.	NVH in DLN section.	NVH in FAX and FSU sections.	NVH in RAX and RSU sections.	Refer to TIRES in this chart.	Refer to ROAD WHEEL in this chart.	NVH in FAX, RAX section.	NVH in BR section.	NVH in ST section.
Possible cause and SUSPECTED PARTS			Improper installation, looseness	Out-of-round	unbalance	Incorrect tire pressure	Uneven tire wear	Deformation or damage	Non-uniformity	Incorrect tire size	PROPELLER SHAFT	DIFFERENTIAL	FRONT AXLE AND FRONT SUSPENSION	REAR AXLE AND REAR SUSPENSION	TIRES	ROAD WHEELS	DRIVE SHAFT	BRAKE	STEERING
Symptom	TIRES	Noise	×	×	×	×	×	×	×		×	×	×	×		×	×	×	×
		Shake	×	×	×	×	×	×		×	×		×	×		×	×	×	×
		Vibration				×				×	×		×	×			×		×
		Shimmy	×	×	×	×	×	×	×	×			×	×		×		×	×
		Judder	×	×	×	×	×	×		×			×	×		×		×	×
		Poor quality ride or handling	×	×	×	×	×	×		×			×		×	×			
	ROAD WHEEL	Noise	×	×	×			×			×	×	×	×	×		×	×	×
		Shake	×	×	×			×			×		×	×	×		×	×	×
		Shimmy, Judder	×	×	×			×					×	×	×			×	×
		Poor quality ride or handling	×	×	×			×					×	×	×				

×: Applicable

PRECAUTION

PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:0000000004528619

The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER”, used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the “SRS AIR BAG” and “SEAT BELT” of this Service Manual.

WARNING:

- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.**
- **Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the “SRS AIR BAG”.**
- **Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.**

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

- **When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.**
- **When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.**

Service Notice or Precautions

INFOID:0000000004347006

- Low tire pressure warning lamp blinks for 1min, then turns ON when occurring any malfunction except low tire pressure. Delete the memory with CONSULT-III, or register the ID to turn low tire pressure warning lamp OFF. Refer to WT-13, "AIR PRESSURE MONITOR : Diagnosis Description", WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".
- ID registration is required when replacing or rotating wheels, replacing transmitter or BCM. Refer to BCS-85, "Exploded View".
- Replace grommet seal, valve core and cap of transmitter in TPMS every tire replacement by reaching wear limit of tire. Refer to WT-103, "Exploded View".

PREPARATION

PREPARATION

Special Service Tool

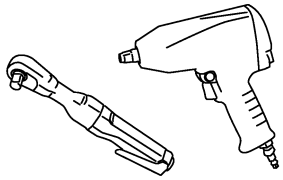
INFOID:0000000004347007

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name	Description
– (J-45295) Transmitter activation tool  SEIA0462E	ID registration

Commercial Service Tool

INFOID:0000000004347008

Tool name	Description
Power tool  PBIC0190E	Loosening wheel nuts

PERIODIC MAINTENANCE

ROAD WHEEL

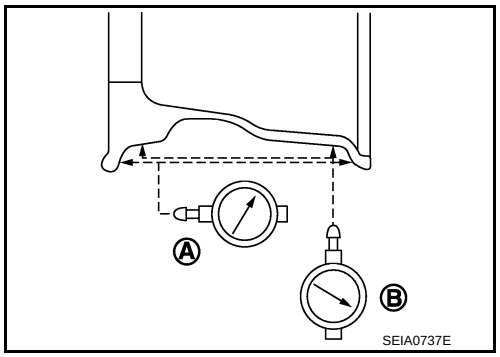
Inspection

INFOID:0000000004347009

ALUMINUM WHEEL

1. Check tires for wear and improper inflation.
2. Check wheels for deformation, cracks and other damage. If deformed, remove wheel and check wheel runout.

a. Remove tire from aluminum wheel and mount on a tire balance machine.
b. Set dial indicator as shown in the figure.
c. If the lateral deflection (A) or vertical deflection (B) for radial runout value exceeds the limit, replace aluminum wheel.



Limit

A: Refer to WT-106, "Road Wheel".

B: Refer to WT-106, "Road Wheel".

STEEL WHEEL

1. Check tires for were and improper inflation.
2. Check wheels for deformation, clacks and other damage. If deformed, remove wheel and check wheel runout.

a. Remove tire from steel wheel and mount wheel on a tire balance machine.
b. Set two dial indicators as shown in the illustration.
c. Set each dial indicator to “0”.
d. Rotate wheel and check dial indicators at several points around the circumference of the wheel.
e. Calculate runout at each point as shown below.

Lateral runout limit (A): (❶+❷)/2

Radial runout limit (B): (❸+❹)/2

f. Select maximum positive runout value and the maximum negative value. Add the two values to determine total runout.

CAUTION:

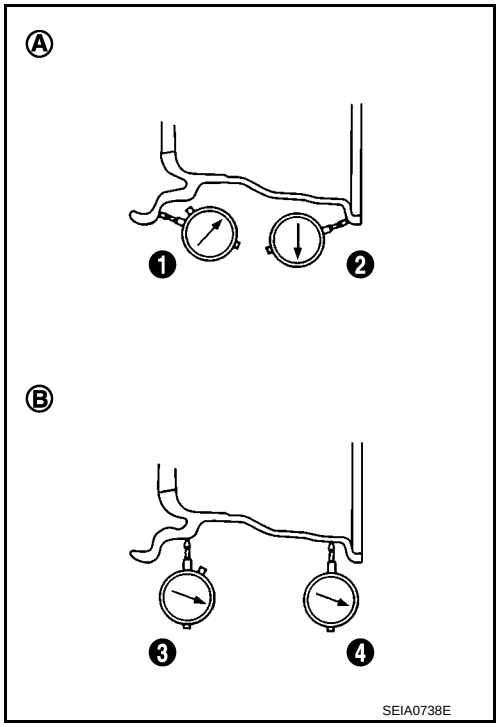
In case a positive or negative value is not available, use the maximum value (negative or positive) for total runout.

Limit

A: Refer to WT-106, "Road Wheel".

B: Refer to WT-106, "Road Wheel".

g. If the total runout value exceeds limit, replace steel wheel.



REMOVAL AND INSTALLATION

ROAD WHEEL TIRE ASSEMBLY

Adjustment

INFOID:0000000004347010

BALANCING WHEELS (BONDING WEIGHT TYPE)

Preparation Before Adjustment

Using releasing agent, remove double-faced adhesive tape from the road wheel.

CAUTION:

- **Be careful not to scratch the road wheel during removal.**
- **After removing double-faced adhesive tape, wipe clean traces of releasing agent from the road wheel.**

Wheel Balance Adjustment

If a tire balance machine has adhesion balance weight mode settings and drive-in weight mode setting, select and adjust a drive-in weight mode suitable for road wheels.

1. Set road wheel on tire balance machine using the center hole as a guide. Start the tire balance machine.
2. When inner and outer unbalance values are shown on the tire balance machine indicator, multiply outer unbalance value by 5/3 to determine balance weight that should be used. Select the outer balance weight with a value closest to the calculated value above and install to the designated outer position of, or at the designated angle in relation to the road wheel.

   CAUTION:

   - **Do not install the inner balance weight before installing the outer balance weight.**
   - **Before installing the balance weight, be sure to clean the mating surface of the road wheel.**

a. Indicated unbalance value × 5/3 = balance weight to be installed

Calculation example:

23 g (0.81 oz) × 5/3 = 38.33 g (1.35 oz) ⇒ 37.5 g (1.32 oz) balance weight (closer to calculated balance weight value)

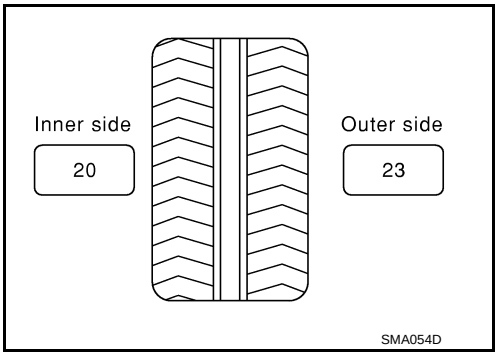
NOTE:

Note that balance weight value must be closer to the calculated balance weight value.

Example:

36.2 ⇒ 35 g (1.23 oz)

36.3 ⇒ 37.5 g (1.32 oz)

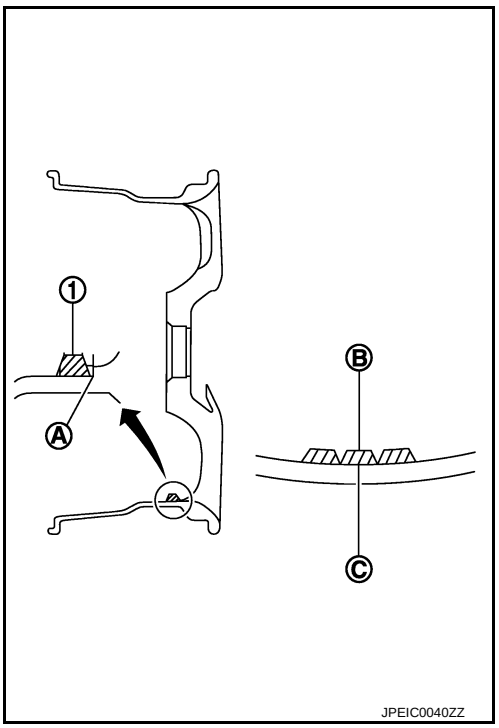


b. Installed balance weight in the position.

- When installing balance weight (1) to road wheels, set it into the grooved area (A) on the inner wall of the road wheel as shown in the figure so that the balance weight center (B) is aligned with the tire balance machine indication position (angle) (C).

CAUTION:

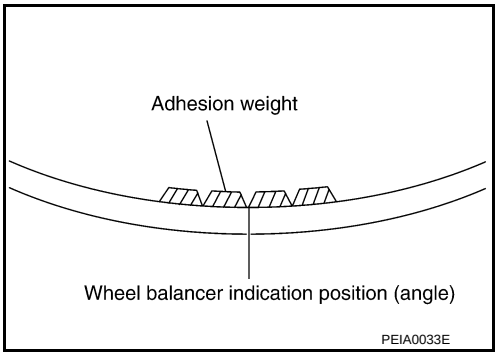
- **Always use genuine NISSAN adhesion balance weights.**
- **Balance weights are non-reusable; always replace with new ones.**
- **Do not install more than three sheets of balance weight.**



c. If calculated balance weight value exceeds 50 g (1.76 oz), install two balance weight sheets in line with each other as shown in the figure.

CAUTION:

Do not install one balance weight sheet on top of another.



3. Start the tire balance machine again.
4. Install drive-in balance weight on inner side of road wheel in the tire balance machine indication position (angle).

CAUTION:

Do not install more than two balance weight.

5. Start the tire balance machine. Make sure that inner and outer residual unbalance values are 5 g (0.17 oz) each or below.
6. If either residual unbalance value exceeds 5 g (0.17 oz), repeat installation procedures.

Limit

Dynamic (At flange): Refer to WT-106, "Road Wheel".

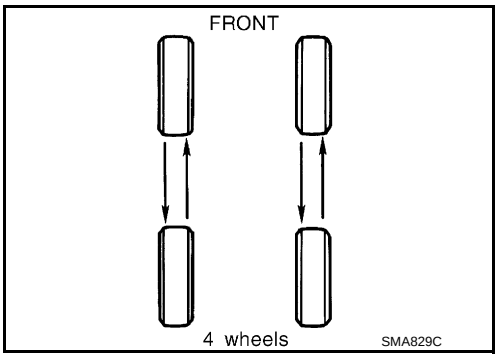
Static (At flange): Refer to WT-106, "Road Wheel".

TIRE ROTATION

- Follow the maintenance schedule for tire rotation service intervals. Refer to MA-4, "Explanation of General Maintenance".
- When installing the wheel, tighten wheel nuts to the specified torque.

CAUTION:

- **Do not include the T-type spare tire when rotating the tires.**
- **When installing wheels, tighten them diagonally by dividing the work two to three times in order to prevent the wheels from developing any distortion.**
- **Be careful not to tighten wheel nut at torque exceeding the criteria for preventing strain of disc rotor.**
- **Use NISSAN genuine wheel nuts for aluminum wheels.**



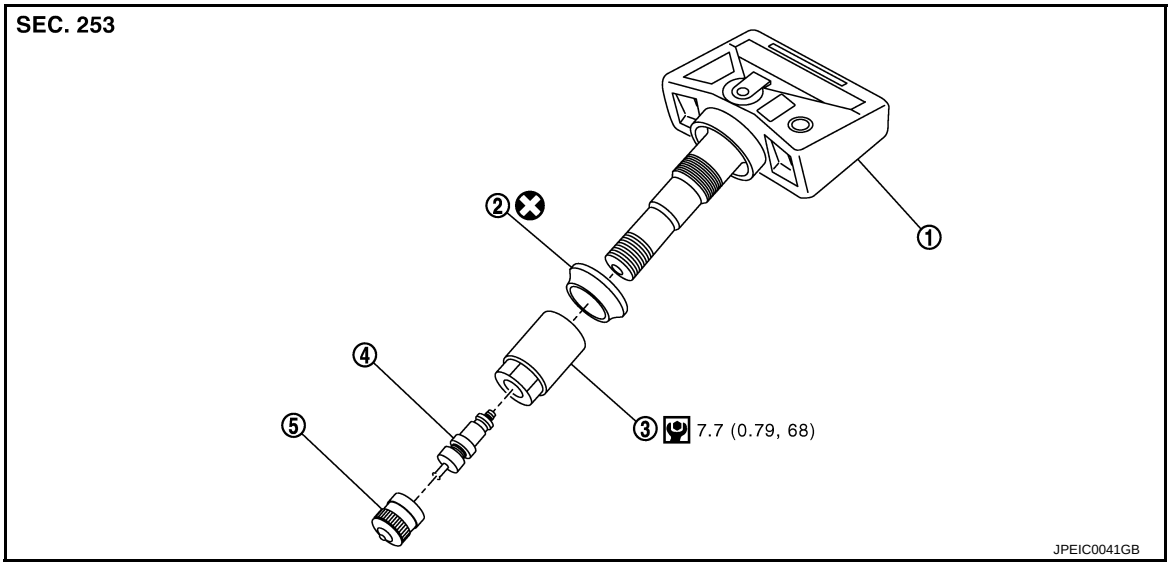
Wheel nuts tighting torque : Refer to WT-106, "Road Wheel".

- Perform the ID registration, after tire rotation. Refer to WT-6, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

TRANSMITTER

Exploded View

INFOID:0000000004347011



1. Transmitter
2. Grommet seal
3. Valve nut
4. Valve core
5. Cap

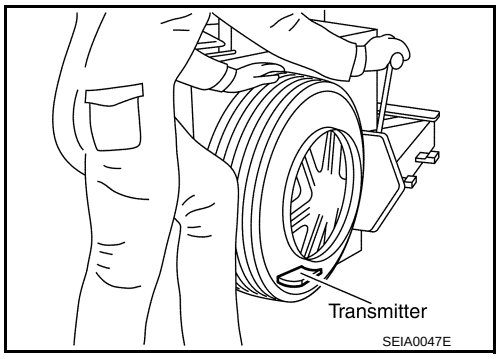
Refer to GI-4, "Components" for symbols in figure.

Removal and Installation

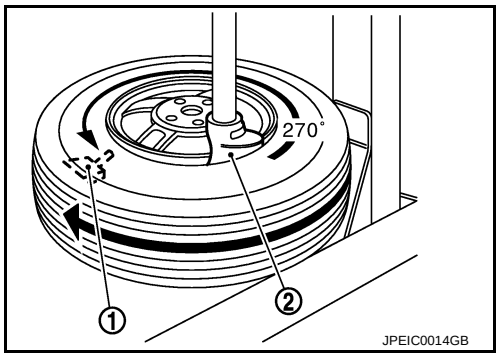
INFOID:0000000004347012

REMOVAL

1. Deflate tire. Unscrew transmitter retaining nut and allow transmitter to fall into tire.
2. Gently bounce tire so that transmitter falls to bottom of tire. Place on tire changing machine and break both tire beads ensuring that the transmitter remains at the bottom of the tire.

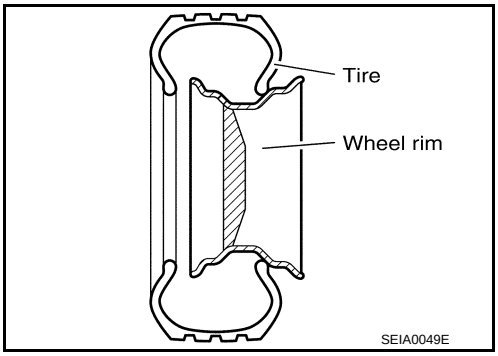


3. Turn tire so that valve hole is at bottom and bounce so that transmitter (1) is near valve hole. Carefully lift tire onto turntable and position valve hole (and transmitter) 270 degree from mounting/dismounting head (2).
4. Lubricate tire well and remove first side of the tire. Reach inside the tire and remove the transmitter.



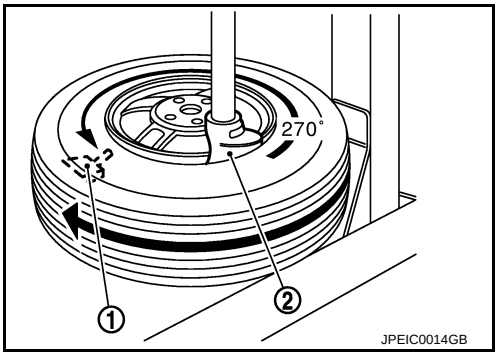
INSTALLATION

1. Put first side of tire onto rim.



2. Mount transmitter on rim and tighten nut.
   CAUTION:
   Speed for tightening nut should be less than 10 rpm.

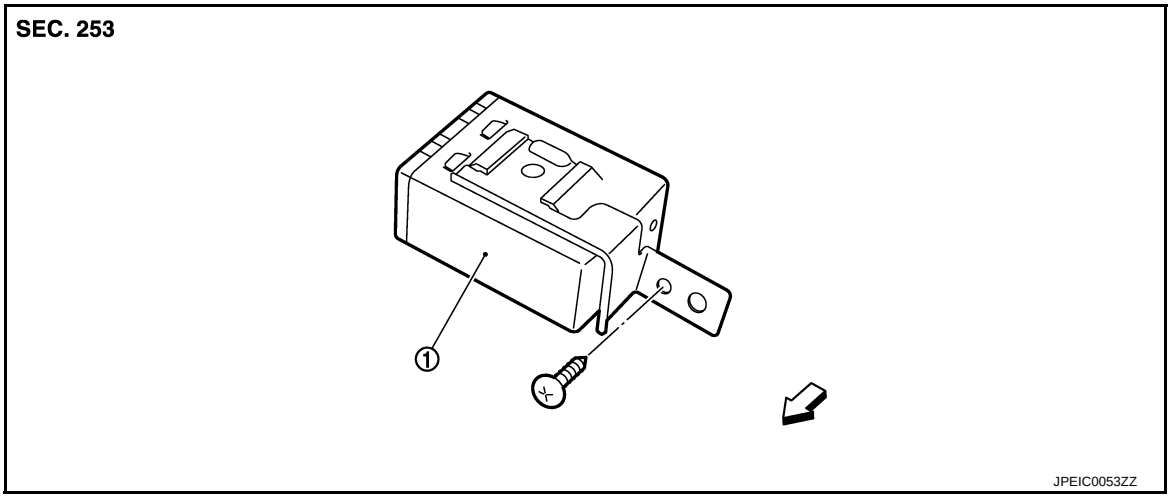
3. Place wheel on turntable of tire machine. Ensure that transmitter (1) is 270 degree from mounting head (2) when second side of tire is fitted.
   NOTE:
   Do not touch transmitter at mounting head.
4. Lubricate tire well and fit second side of tire as normal. Ensure that tire does not rotate relative to rim.
5. Inflate tire and fit to appropriate wheel position.



TIRE PRESSURE RECEIVER

Exploded View

INFOID:0000000004347013



1. Tire pressure receiver

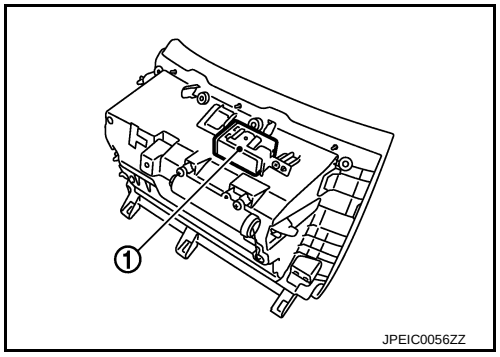
⇦: Vehicle front

Removal and Installation

INFOID:0000000004347014

REMOVAL

1. Remove the instrument lower cover. Refer to IP-12, "Exploded View".
2. Remove the instrument lower panel RH. Refer to IP-12, "Exploded View".
3. Disconnect tire pressure receiver (1) harness connector.
4. Remove Tire pressure receiver mounting screw.
5. Remove tire pressure receiver.



INSTALLATION

Install is the reverse order of removal.

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Road Wheel

INFOID:0000000004347015

ALUMINUM WHEEL (CONVENTIONAL)

Item		Limit
Radial runout	Lateral deflection	Less than 0.3 mm (0.012 in)
	Vertical deflection	
Allowable unbalance	Dynamic (At flange)	Less than 5 g (0.17 oz) (one side)
	Static (At flange)	Less than 10 g (0.35 oz)

ALUMINUM WHEEL (FOR TEMPORALLY USE)

Item		Limit
Radial runout	Lateral deflection	Less than 1.5 mm (0.059 in)
	Vertical deflection	
Allowable unbalance	Dynamic (At flange)	Less than 5 g (0.17 oz) (one side)
	Static (At flange)	Less than 10 g (0.35 oz)

Wheel Nut

INFOID:0000000004347016

Item	Standard
Wheel nut tighting torque	108 N·m (11 kg-m, 80 ft-lb)

Tire Air Pressure

INFOID:0000000004347017

Unit: kPa (kg/cm^2, psi)

Item	Standard	
	Front	Rear
P225/60R17 98V	230 (2.3, 33)	
P225/55R18 97V	230 (2.3, 33)	
T165/80R17	420 (4.2, 60)	